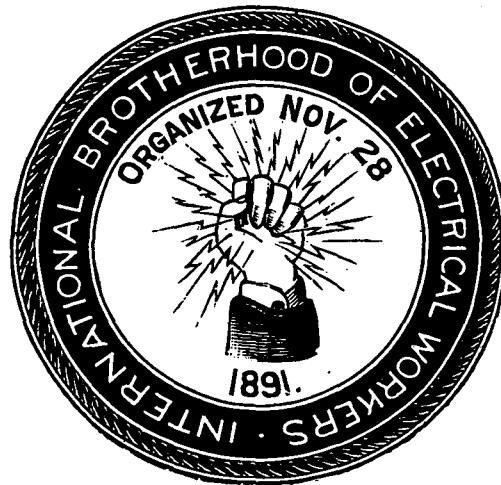


July 1904

THE ELECTRICAL



WORKER

OFFICIAL JOURNAL OF THE INTERNATIONAL
BROTHERHOOD OF ELECTRICAL WORKERS

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A WONDERFUL ELECTRIC LIGHT TOWER.

WITH all its science and money the United States Government has never yet succeeded in establishing a lighthouse at a point where it is needed more than anywhere else on the Atlantic coast—Cape Hatteras. Here is the best-loved home of the storm king; here he thunders and rages, dealing death and destruction year after year, age after age. It is true there is a shore lighthouse at Hatteras, and there is a lightship anchorel off Diamond Shoals, a strong ship built to withstand the fury of wind and wave, and with great anchors and chains that would saftly hold the biggest warship or liner in the world under ordinary strain, but an immovable lighthouse is needed here, for sometimes even the best moored light-vessels break anchor chains and go drifting at the mercy of wind and wave.

An effort to build a lighthouse on outer Diamond Shoals at Cape Hatteras, was made some years ago, but this was a complete failure, and the contractors for this work lost about \$100,000. It was possible, in spite of the rough water of this part of the coast, to put down a foundation, but before a tower could be put thereon the completed work was swept away. So that project was abandoned.

But now comes forward a man, a Mr. Eells, of Boston, Mass., who says he can build a permanent lighthouse on Diamond Shoals, and the Government, after considering his plans, bids him go ahead with the work. However, Mr. Eells must build the lighthouse at his own expense, receiving no money from Uncle Sam until the light-

house has been finished and used for a period of five years; but if at the expiration of this time, the structure is in good con-

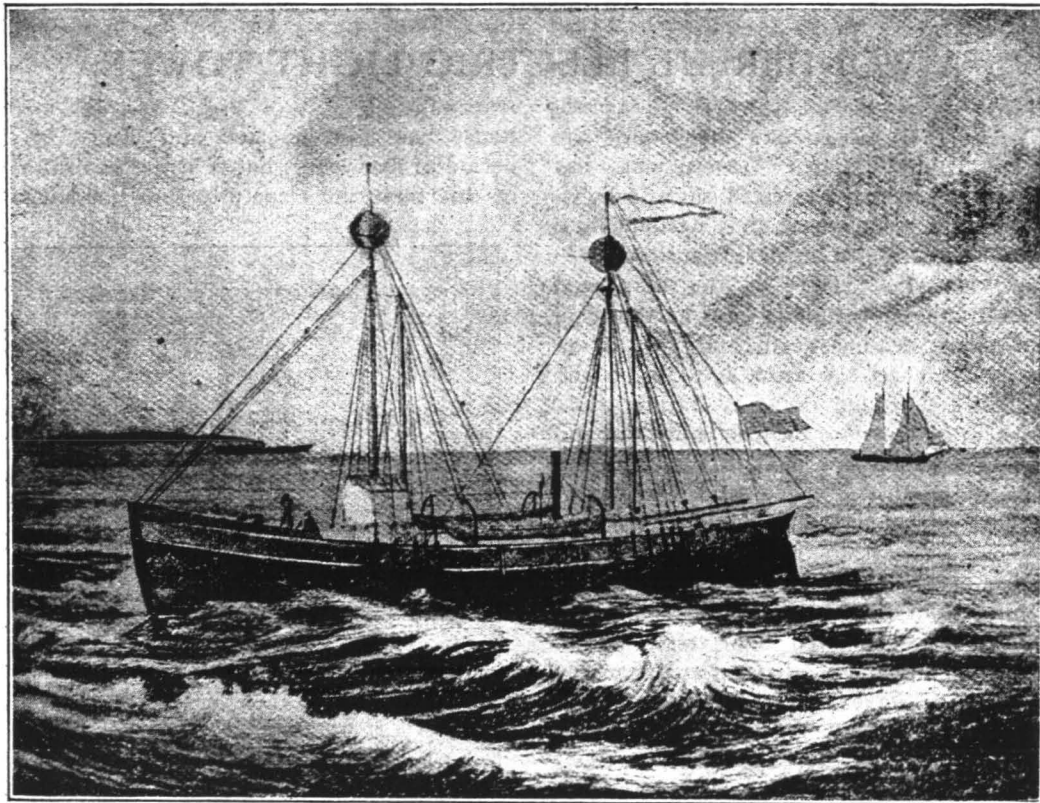


STEEL FRAME LIGHT HOUSE AT SEA.

dition, Mr. Eells or his assigns or legal representatives will receive about one million dollars. This seems a large sum, but the undertaking is stupendous, and will re-

quire special apparatus and considerable risk in carrying out. The foundation of this lighthouse must be of enormous weight and size to resist the action of the waves and shifting sand. It may be said here that the wind at Cape Hatteras often blows at the rate of from 90 to 100 miles an hour, and waves reach a height of over 50 feet. The records of the Life Saving Service show that between 1878 and 1902 there were 97 wrecks at this point, with total loss of

funnel will be 120 feet in diameter, tapering upward to the mouth, which is to be 45 feet across. The outer and inner sides of the funnel will be made of heavy steel plates, riveted together, and there will be considerable space between them. This space is for air, so that the big funnel will float, the neck portion being kept upright by ballast, put into the bottom of the side air spaces, and the flaring bottom being sunk below water level.



FIRST-ORDER LIGHTSHIP.

62 lives and \$3,000,000 worth of property. Captain Eells' plan is to build a great solid rock with its bottom deep down in the sand, and so securely placed that neither the shifting of the latter nor the most terrific storms can affect it. On the rock the superstructure will be erected.

In carrying out the work the contractor will have built at a shipyard nearest Hatteras, a huge funnel-shaped steel structure, hollow in the middle, and also having hollow sides. The larger, lower part of this

When the great funnel is finished and launched it will be towed to sea and to Diamond Shoals and anchored over the spot, in 30 feet of water, where it will be sunk. When the latter operation is accomplished—by filling the hollow sides with concrete—the water is pumped out of the central space, and the funnel then becomes a caisson with its lower edges sinking into the bottom sand.

The pumping apparatus will be carried on a vessel anchored nearby. After the water

is pumped from the caisson compressed air will be forced in to keep the water from coming in from below while workmen excavate the sand, which will be taken out down to the level to which the lower edge of the caisson will sink. Through the upper 45-foot orifice of the caisson stone, cement, etc., will be passed and ten layers of masonry will be laid in the bottom and strengthened by cross beams of steel fastened to the sides of the funnel. The remainder of the hollow space of the caisson will be filled with gravel, stone and cement, and the whole body of material when it hardens will compose a huge artificial rock, weighing about 20,000 tons. The outside covering of steel may rust away, but the funnel-shaped structure will remain.

On the foundation thus prepared a circular house, 45 feet in diameter and 35 feet in height, will be built. This will be arranged into two stories, having eight or ten rooms for living apartments for the light-keeper and for a small life-saving crew. The lower floor will contain an engine with dynamo, furnishing the electric light. There will be a spiral stairway up the light-tower, but, later an electrically operated elevator may be used. A steel tower, 120 feet high, will rise from the circular living quarters, and at the top of this will be set the lighting apparatus, surrounded by an observation platform. There will also be a platform balcony around the living apartments, set 80 feet above water, and men and supplies which are brought by the lighthouse tending vessel, will have to be hoisted up by an electric power derrick. The lighthouse will be situated about seven and one-half miles from the mainland, and the intervening space is often so rough that nothing but a fish could live there—and few fish would feel at home in that neighborhood.

The use of electricity for lighting purposes on Diamond Shoals, at Cape Hatteras, should be an improvement on any method yet tried there. The light will be more powerful than is ordinarily used on the Atlantic or Pacific coasts, and, of course, can be seen at a greater distance by approaching ships than that afforded by oil lamps.

The Lighthouse Board has not paid a

great deal of attention to electric lighting on coast and lightship, but the service employs this light to some extent. For some years the electric light has been used on the steam lightship at Cornfield Point, Long Island. This vessel is one of the best of its kind, cost about \$70,000, and is maintained at an expense of about \$10,000 per annum. The electric lighted buoy is also a part of the lighthouse service protective system. Those who attended the great Exposition at Chicago will recall the pretty effect of the electric buoys on the water front. There were thirteen used, and were placed half a mile apart, commencing a half mile from the Casino wharf and running in a line, passing half-way between the outer and inner Hyde Park Shoals, one and three-fourth miles from shore at the farthest point. The lamps on the buoys were Bernsteins of 100-candle power, connected with apparatus at the Casino dock. Here were two single pole knife switches, two Hill switch-and-fuse boxes, and two Wurtz lightning arresters. The electric current was supplied from a 10,000-light Westinghouse dynamo, and was delivered at 2,200 volts, transformed down to 1,460 volts.

BEWARE OF IMITATIONS.

M. Klein & Sons, Chicago, recently received a letter from a party in South Dakota asking for a rebate on a pair of faulty climbers, which were said to be of their make. The firm at once instructed the Dakota party to ship them the climbers in question, stating that they would do whatever appeared to be right in the matter. On arrival of the climbers, they were found to bear merely the stamp "Klein," instead of "M. Klein & Sons," as all of their tools are marked. Some unscrupulous manufacturer, as yet unknown, is evidently trying to profit by the good reputation which M. Klein & Sons have established for their tools during the forty-six years that their product has been on the market. There may be no legal recourse against such dishonest practice as the foregoing instance, but the trade should bear in mind that all tools manufactured by the well-known Chicago concern bear their distinctive stamp "M. Klein & Sons."—*"Trade Notes," in "Sound Waves," January, 1904.*



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As THE ELECTRICAL WORKER reaches the men who do the work and recommend or order the material, its value as an advertising medium can be readily appreciated.

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*This Journal will not be held responsible
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THE HENRY E. WILKENS PRINTING COMPANY

THE SAME OLD STORY.

Ever since the writer's connection with the Brotherhood he has kept up a constant agitation to have locals bond their officers, but it seems as though experience is the only teacher, for hardly a week passes but what we receive communications informing us that Johnny-the-Good-Fellow, whom the members refused to bond, had skipped out with the local's money. The trustees

couldn't tell just what he took, as no one ever called for a report, just depended on Johnny-the-Good-Fellow's honesty. We often wonder if some fellows will ever get wise, and do business on business principles. Bond your officers, and keep them bonded. It is not a question of honesty, but one of business. Don't depend so much on good fellowship, for perhaps the good fellow may be making a good fellow of himself on your money. But what's the use! The same thing will happen again and again—the same old story!

LOOK² AHEAD.

Soon another year in the history of our Brotherhood will have passed and gone, and now the future must be looked into. In the few years of our existence we have made wonderful strides, but we should do even better in the future. The question may be asked, How? We answer, by each member of our organization doing his plain duty to his fellow man; by throwing aside all local feeling and having but one desire, one ambition, and that the International Brotherhood of Electrical Workers; in fact, the whole labor movement. We are being attacked by the money lovers, who have formed themselves into so-called alliances for the purpose of crushing out labor organizations. Will they succeed? Certainly not. Did you ever stop long enough to think that success with them is impossible, if we remain loyal to our organizations? In other words, we must not help them by our indifference. Do you think the business men stay away from the meetings of their association? Oh, no; they do not; they are always on hand to protect their own interests. It's a matter of dollars and cents to them, and just so it is a matter of dollars and cents to us; and we should show an interest by attending the meetings of our organizations and helping in the work to increase our membership, and build up a great organization for the future. If at the last election you ran for office and the other fellow won out, why, don't kick and holler. Just look ahead; there will be other elections; take your medicine like a man; if you got the most votes, he would have to make the best of it. Whenever you hear a calamity howler say there is a

regular ring running the whole business, just make up your mind he is a dead one, and is using this as a subterfuge to keep away. If perchance, dear reader, you were elected president of your local at the last election, make up your mind to do the very best you can; angels can do no more. Be punctual at all times; be impartial, and you are doing your duty. If you were elected recording secretary, do your duty, and take a look ahead. If elected financial secretary, just remember the responsibility you have assumed, and don't forget that the future success of your local depends on your work. The system we have does not require a bookkeeper, but just good, common sense. Don't become indifferent in your work; put your heart in it. Remember, indifference on your part makes indifferent members; indifferent members make poor locals; poor locals make a poor Brotherhood. By looking ahead we will succeed. If the present constitution is inadequate, study up something better. "But," some may say, "why should I do all this; I may not be a delegate to the next convention?" If not, look ahead; there will be other conventions, and you may win in the long run. If some fellow comes up to you, takes you by the coat and whispers in your ear that something is wrong about something or other, just make him deliver the goods. Don't join the Knockers' Club, but look ahead to the future success of our organization.

LINEMEN are requested to keep away from Baltimore, Md. Nothing doing.

INSIDE WIREMEN are requested to keep away from Jacksonville, Fla. Pay no attention to offers of work from there. Strike on.

CHARTERS GRANTED IN JUNE.

No. 465—San Diego, Cal.
 No. 466—Belvidere, Ill.
 No. 464—Cleveland, Ohio.
 No. 349—Miami, Fla. 4-2-00
 No. 467—Chattanooga, Tenn.
 No. 315—Baton Rouge, La.
 No. 312—Rome, Ga.
 No. 337—Parsons, Kans.
 No. 126—Little Rock, Ark. (Reinstated.)

INFORMATION WANTED.

Should either Mr. W. O. Wilson or L. C. Lytz see this, please write to me. Or should any brother know their whereabouts, will you kindly write me? Will Farrington, New Decatur, Ala.

Will Brother Claude Martin please communicate at once with C. F. Blocher, recording secretary, Local No. 155, Oklahoma City, O. T.

Anyone knowing the whereabouts of Ed Cosgriff will confer a favor by writing to his mother, Mrs. G. Cosgriff, Fowler, Mich.

Lost, together with brown note book, Card No. 25413, belonging to Brother M. E. Stout, and Card No. 66116, belonging to Brother Eli Gallants. Locals, please take notice. V. S. Whitney, business agent, No. 236, W. Onandaga street, Syracuse, N. Y.

Secretary of Local No. 159 would like to communicate with Steven Winsby, Card No. 30938, and Fred Mahley, Card No. 30939, soon as possible. Very important. E. J. Winsor, Recording Secretary.

Will Bill Wilde and Charlie Sprague, who worked with me at Avondale, Pa., please write to me. Address Jean or E. B. Miller, 186 I street, South Boston, Mass.

This choice bit of humor comes from out of the East: An Irish woman went to a photographer's, and, after stating that her husband was dead, requested a picture of him. On being asked for a likeness, she said: "Shure, if I had wan picture of him, wat wud I come here for?"

The photographer, always ready for fun, replied: "If you give me five dollars and a description of your husband, I think I can accommodate you."

"Well," answered the woman, "he had red hair, gray eyes, was tall an' thin, and rather narvus."

A picture answering the description as far as the whiskers were concerned was handed to her.

On receiving the picture, and with tears streaming from her eyes, she said: "Oh, Dennis, how you have changed!"

Reports From Grand Officers

Grand President.

While on my way to Charlestown, W. Va., to investigate the circumstances that caused the trouble between Local No. 256 and the Southern Bell Telephone Company, I stopped in Louisville, Ky., and attended meetings of Locals No. 112 and No. 369 on June 3, and arrived in Charlestown on the 5th; met several brothers of the local, who informed me that a special meeting of the brothers, who were on strike, would be held on Monday morning. I attended the meeting and was informed that Local No. 256 had placed a wage scale before Mr. Williamson, the manager, calling for \$2.50 per day of nine hours.

Mr. Williamson refused to give the committee any satisfaction, and then began laying off the men; after one week, the committee called on him again, and found him just the same as the week previous. After hearing the local's side of the question, I requested that a committee be appointed to call on Mr. Williamson, who denied that he was given any notice officially; he claimed that the men simply came to him one morning and gave him ten minutes' notice to the effect that if he did not grant the demands, they would quit work.

I found, after hearing both sides, that the local did send notice to Mr. Williamson one week previous to taking final action.

He refused to settle on any basis other than that the men return to work with the scabs.

I sent a telegram to Mr. Gentry, explaining the situation and received a very unsatisfactory reply from him the following morning. We then called on Mr. Williamson again, with the same result as our previous meeting. I telegraphed to Mr. Gentry again and received a reply telling me to call on Mr. Williamson the following day, which I did, and was informed that he was going out of the city for three days, and could not talk on any different lines regarding the settlement of the trouble, as he had not received the instructions from Mr. Gentry that he (Mr. Gentry) had referred to in his telegram to me. This meant that I would have to wait until Monday to meet

Mr. Williamson, so I left Charlestown for the general office on the 9th, arriving there on the morning of the 10th. I left Washington for Charlestown on the 13th, met Mr. Williamson with the committee of Local No. 256, and settled trouble on the following conditions:

Men to return to work under the same conditions as existed before the strike.

Non-union men to be transferred as soon as possible.

The wage question to be taken up with the proper officials of the company by D. V. P. Smith.

This was satisfactory to all brothers affected, and they returned to work on the following morning. This strike would never have occurred if D. V. P. Smith had been informed of the grievance, as he could have settled it without any trouble.

If the locals in the jurisdiction of the Southern Bell Telephone Company will place their grievances in the hands of D. V. P. Smith before taking action, that may lead to a strike, I feel safe in saying that they can be settled, if they are just and within reason.

If locals are going to take matters in their own hands, ignoring the constitution, they cannot expect the assistance of the Grand Vice-President or Grand President, as our time can be spent in behalf of locals who respect the constitution and adhere to it at all times.

I left Charlestown for Louisville, Ky., on the 15th and stopped in Huntington, W. Va., and Ashland, Ky., to find out, if possible, the reason the locals that were in that city had disbanded. I found, after looking over the field, that a local could be placed in Ashland, taking in the cities of Huntington, W. Va., and Ironton, Ohio. I have instructed D. V. P. Smith to take up the matter as soon as he gets near that part of his district.

I arrived in Louisville on the 17th, and addressed open meeting of Local No. 112, which was not as successful as I had hoped it would be. If the active brothers of that local keep up the agitation they have started they cannot help but be successful.

I arrived in Washington on the 19th. Left Washington on the 26th for St. Louis, where I had called a meeting of the executive board for the purpose of considering matters of great importance to our Brotherhood.

All questions brought before the executive board with decisions thereon will be printed and sent to each local union as soon as possible.

I would respectfully call the attention of all local unions to *Section 7, Article 26* of our constitution, which states: "The treasurer shall file a bond with the trustees in such amount as filed by the T. U. as security for funds and the faithful performance of his duties."

Each and every local union should insist on their treasurer furnishing a bond; no honest man will refuse to comply with the constitution on that point. Very often, when I ask the question, "What is the reason for your treasurer not being bonded?" I am informed that the trustees cannot find any bonding company that will furnish a bond, or that they had not time to attend to it, or, perhaps, they will tell me, "Why, I would stake my life on the honesty of our treasurer; he has lived all his life in this city; all the brothers know he would not take a penny that does not belong to him." No excuse is good enough for a local to overlook the bonding of their treasurer. Remember, it is a business proposition, pure and simple, and good fellowship should not be allowed to prevent the transaction of business of such importance. If your trustees report that they cannot find a bonding company that will furnish a bond, refer them to the general office, and they will be furnished with all necessary information as to how to proceed to secure one.

I do not call the attention of the locals to this important section of our constitution because we have more dishonest men in the labor movement than we find in other institutions, for such is not the case. Ex-Sheriff William O'Brien, of the city of New York, stated not long ago, that during his term of office (two years) as sheriff he took to prison two laboring men against about thirty bank officials, which shows that the labor movement is composed of

honest man, as a rule, but, as there are black sheep in every flock, it is the duty of every local to enforce the constitution on this question at all times, regardless of who your treasurer may be. Look at it from a business standpoint and not from a personal one. It may save your local many dollars and many members.

F. J. McNULTY.

St. Louis, Mo., July 4, 1904.

First Vice-President.

I left Utica June 6, after assisting Local No. 181 in their trouble with the contractors, the local and myself doing all we could to effect a settlement, but to no avail. The boys put up a good battle, and I believe will win in the end. While there I looked up about all the non-union men and induced most of them, with the assistance of President Durr, Brother Cosstela, and Brother Kintzing, business agent of Local No. 40, to make application to Local No. 40. Also made suggestions regarding local district councils with nearby locals, which they favored and promised to act on.

June 6 visited Local No. 79 and took up important matter with them. They were under the impression that they had no right to take in trimmers, but after explaining the constitution it was decided to make arrangements to get them together. I promised to attend the meeting when they were ready to take them in.

June 7 I went to Rochester, intending to call on Local No. 220, but found on going to their rooms in the evening that they had changed their meeting time from the evening to the afternoon.

I went to Oswego June 8, with the intention of visiting Local No. 328. They are in the directory as meeting in the Trades and Labor Hall. I discovered that they do not meet there, and was unable to find where they met until very late. I saw the vice-president next day, and he informed me that enough members did not appear to hold a meeting; also, that the members took but little interest in the welfare of the local, preferring to let the few do the work. I wrote to one of the officers, but as yet have received no answer.

From Oswego I went to Auburn and paid a visit to Local No. 300. I found a

good attendance, and all members taking an interest in all matters brought before them for discussion and action. In my talk to them I asked them to appoint a committee to confer with the two locals in Syracuse relative to forming a district council between the two locals in Auburn. The request was granted. I also spoke to the Syracuse locals. They also concurred in the suggestion. I believe it will not be long until a good council will be formed in that district.

I left Auburn for Syracuse, and attended Local No. 43's meeting, at which several important matters were acted on, after a great deal of interesting discussion.

I attended a special meeting, held Sunday, June 12, a good body of trimmers being initiated, after which I explained the workings of the Brotherhood, and what we expected of them as members in the future.

I had received several requests from Local No. 421 of Watertown, asking me to come there and see what I could do in the line of getting the non-union men to join the union. I arrived there on June 14, and attended meeting of the local, promising them I would stay long enough to see all the men who did not belong. I made a house-to-house campaign to see those I could not meet at work, Brothers Piter and Dickinson going with me in the evening. Heretofore I have always been able to report a big gain in membership when acting in the capacity of a missionary organizer, but in this case I am sorry to confess that I was unsuccessful in gaining converts. After exhausting every effort to induce them to join the local, I came to the conclusion it was useless to try further, as they were of the class that President C. W. Eliot, of Harvard, calls heroes. (Definition of hero: Not afraid to scab, but afraid to join a union to better their condition.)

From Watertown I went to Rochester and attended a meeting of Local No. 86. I wish to state that the employers through advertising that there was a big boom in the building line induced a great many of our members to come to Rochester. They found out such was not the case, especially in electrical work. I would advise brothers to write the local for particulars before spending carfare and then finding no work.

I also visited Local No. 220, and took up several matters with them, and advised them to meet a committee from Locals No. 44, No. 86, and No. 284, to form a local district council, which they agreed to do.

I then left for Buffalo on my way to St. Louis to attend meeting of executive board. Attended meeting of Local No. 41. Work in Buffalo is very slack at present, with no immediate prospects of it picking up. The findings of the executive board will be sent to all locals.

FRANCIS J. SWEET.

Second Vice-President.

I herewith submit the following report for the month of June:

By urgent request of Local No. 104 I took up the work of trying to organize all the linemen in and around the cities and suburbs of Boston within a radius of fifteen miles, taking in electric light stations, telephone and car stations, covering the following cities and towns: Brookline, Cambridge, Watertown, Waltham, Newton, Madden, Charlestown, Somerville, Arlington, Winchester, Woburn, Lynn, Revere, Jamaica Plain, Dorchester, and Quincy; also the central stations in Boston. I found that the linemen are pretty well organized in this city, but sorry to say many are not in good standing on account of arrears in dues; also found several from other locals without traveling cards, who promised to make good. As there were only from two to six linemen at the various stations the task was not an easy one, in regard to finding the men. I succeeded in getting over 45 applications, and had to go twice to some of these places. I feel quite sure it would be of great benefit to Local No. 104 if they would appoint a business agent and keep a man in the field constantly to collect dues and get after the scattering few outside of the Brotherhood. On Sunday, the 5th, I went to Portsmouth, N. H., and met some more of the men there. While I got eleven signatures I did not get cash enough to apply for a charter, as the men there wanted to talk matters over themselves in relation to more men in another city close by. I returned to Boston on the 6th. On the 12th I went to Providence and attended meeting of the District Council. There were dele-

gates from thirteen locals present. I am sorry more locals did not respond to the call. Several matters of importance were taken up and discussed, but am sorry to say the District Council has not yet got down to the proper work it should do, and I sincerely hope that all locals will be represented at the next meeting. Plans were adopted to further assist the work of organizing. Local men can strengthen their ranks if more would put their shoulders to the wheel and not depend too much on the individual who is elected to some office. Six men could not meet the demands that are made for my services. I saw a good chance in Boston and am in hopes success will soon favor Local No. 104. I exerted all the energy I possibly could to build up their local. On the 14th I went to Lowell and attended meeting of No. 461. Can safely say that local is making good progress, and some of the members are taking a great interest in the cause. On the 17th I went to Brockton, Mass., and interviewed several linemen, some of whom were very much in favor of joining the local there. I then hunted up the inside men and we held a conference in the rear of Tremaine's shop, but sorry to say some of the men were not in favor of taking the linemen into their ranks. However, some thought it a good plan, and I left the matter in their hands to decide until I hear from them later. I was also requested by Local No. 103 to take up a few matters pertaining to the interest of that local. While No. 103 succeeded in gaining peace and good conditions from nearly all the contractors in Boston, we now find ourselves in conflict with other organized crafts, who envy our success and want the lion's share of our work, and in return merely give us the trouble of fighting for what we are entitled to. We have tried every possible means to fix up matters on trade lines with the elevator constructors, and they absolutely refuse to make any concessions. They even would not appear before the Structural Alliance and present their claims, notwithstanding the fact that an agreement was made by both Brotherhoods at the convention last fall in Denver, Col., the same being printed in the August WORKER.

After some difficulty I found a copy of

their agreement submitted to their employers, and to my surprise I found a clause in the same claiming all electric work on elevators, such as flash lights, annunciators, bells, car lights, and all wiring from service to controller, which was conceded to us under an agreement signed by H. W. Sherman and William Havenstrite. I attended meeting of the Structural Trades Alliance, and offered a protest against the elevator constructors. As no members from that body (elevator constructors) were present I asked that a special meeting be called, and requesting that the elevator constructors be unseated. Special meeting was called on the 23d. Elevator constructors not being present, a committee was appointed to go to their hall and request their delegates to attend. They finally put in an appearance, and as they asked for more time in the matter another meeting was called on the 24th, and after a long and stormy session the elevator constructors were found guilty, and were informed that the agreement made and entered into by them with the I. B. E. W. be recognized and sustained. Being obliged to leave for St. Louis on the 25th I am unable to report further on this matter, as meeting of executive board is now being held in this city, where action will be taken on the same. As most of my time was taken up by Locals No. 103 and No. 104 this month, there are some matters it would not be advisable to report at present, but am in hopes to report some good news from Local No. 104 in the near future.

As there are some matters in other locals that need some attention, I shall endeavor to attend to them as soon as I possibly can upon my return.

As the proceedings of the meeting of the executive board will appear in the next issue of the WORKER I will not attempt to report anything that transpired at this writing.

E. T. MALLORY.

St. Louis, Mo., July 1, 1904.

Third Vice-President.

Closing my last report was in Cincinnati, Ohio, where Devere Electric Company had an injunction against officers of No. 212. On Monday, June 6, the same was argued before Judge Ferris by attorneys for No.

212 and Devere Electric Company. After hearing both sides the judge said if he had understood the case then as he did now he would never have granted the injunction.

He told the lawyers to get together on the outside and bring their clients together and effect a satisfactory settlement, and if they could not, to come back with a report to him and he would render a decision that would be binding on both sides.

Lawyer for No. 212 presented an agreement to Devere Electric Company, which was rejected, but they had their lawyers lift the injunction, and it is now up to No. 212 and Mr. Devere to get together.

Attended meetings of No. 235 while in the city; had charter opened; succeeded in getting 14 new members, while I was in the city, and had good prospects for about 10 more the next meeting.

Did not get to attend No. 30, as they met the same night as No. 212, and the night they met had important business in No. 212 that kept up till after No. 30 had adjourned.

Left Cincinnati, Ohio, for Dayton, Ohio, on the 13th; attended meeting of No. 241; find they have not a very large local, but have a few good, hustling brothers, who are working hard to build it up and get better conditions.

Next day spent in looking up some linemen and inside men who are not members; also some ex-brothers, who are in arrears; received promises from all of them that they would join locals in that city.

At night attended meeting of No. 118; have a good local, with a bunch of good, hustling members.

Went from Dayton to Piqua, Ohio; find No. 297 had not held a meeting for over two months; visited telephone and light company; found two brothers with telephone company, also two ex-brothers; next night being regular meeting night of No. 297 told brothers with telephone company to be at hall and would try to start local going again.

Went to hall and found nine brothers there. After going over everything thoroughly found they wanted to get local going again, and as there were enough brothers working in and around Piqua I notified the brother who had the books to bring them to

the hall Saturday night, when I would straighten them out and start No. 297 going again.

Friday went to Springfield, as had sent notice ahead; arriving there found a good many brothers were working out of city, but would be at regular meeting Monday night; visited some of the brothers; also had a talk with some men who were working for light and street car company.

Saturday went back to Piqua, held a meeting, straightened books up, elected officers, and started No. 297 doing business again.

Sunday, the 19th, went back to Springfield, met some of the brothers, and found out where a few men were working that did not belong. Monday morning visited all I could find in city, then hired a rig, going out in country where five linemen were working on street car job, who were not members. Found one had filled out application a few days before, another was willing to join, two were not very favorable, and the other was an ex-member, who had a kick about some dues he was not given credit for.

Attended meeting of No. 204 that night; have a very good local; explained the grievance this ex-brother has who is working on street car job, and will attend to same at once.

On morning of 21st left Springfield for Columbus, Ohio, stopping off at London, Ohio, to visit a couple of brothers working there; found they were out of town, but did find a man working for light company who at one time did carry a card, but was two years in arrears; promised to join No. 204 in a couple of weeks. Arriving in Columbus, tried for a meeting of shop men; in this was not successful, as company had just discharged a few men they claimed were agitators, and this had made others afraid. Attended meeting of No. 54 Thursday night, No. 446 Friday night, and found both locals improving, but there are still quite a few linemen and inside men working in city who do not belong. Through the day visited men working for telephone and light company, who have promised to fill out applications next pay day. Sunday morning umpired a ball game between No. 54 and No. 446; had a very good and in-

teresting game; score, 3 to 2 in favor of No. 446; am going to notify the Pittsburg club if they wish to strengthen their team they can find the material among the electrical workers of Columbus, Ohio. Left Columbus, Ohio, Sunday night, the 26th, for St. Louis, Mo., to attend meeting of executive board. Attended No. 1's meeting Monday night, and Tuesday morning executive board went into session, and on closing my report are still doing business.

E. P. ALLMAN.

St. Louis, Mo., July 2, 1904.

Fourth Vice-President.

On June 1, 2, and 3 I was in the Memphis (Tenn.) trouble, and could get no settlement, and found it was a case of fighting it out, so I left instructions and left for Jackson, Tenn., on the 4th, and found only five men there eligible to membership and four of them had cards out of other locals. So on the 5th I went to Hopkinsville, Ky., and had a special meeting. We notified all men working for the C. T. & T. Co. to come to an open meeting on the 7th, and only one came. He would not join. As the Home Tel. Co. had signed our agreement and we had presented the agreement to the manager of the C. T. & T. Co., who absolutely ignored it, we placed the C. T. & T. Co. on the unfair list.

On the 8th I went to Nashville, Tenn., and found that local doing good work. I held a meeting there on the 10th, with good attendance.

On the 11th I went to Chattanooga, Tenn. On that night I got the electrical workers together and succeeded in landing a charter.

On the 12th I went to Atlanta, Ga., in answer to a telegram. After calling special meeting, we laid the trouble over for awhile. While there I attended a regular meeting of No. 84, with good attendance, and also attended a meeting of No. 78, with good attendance, and we had several candidates. From there I went to Rome, Ga., to attend the State Federation of Labor, which was well attended and a great deal of business transacted. While there I got the electrical workers together and got a charter there. From there I went to Chattanooga to install that local, got several new applications, and think we will have

a good local there. From there I went back to Rome, Ga., to install that local, and got all the men in the business into the local. From there I went to Knoxville, Tenn., and had an open meeting, with poor attendance. From there I went to Paducah, Ky., on a request from No. 177, and succeeded in getting an agreement with the Home Telephone Company signed up for one year. From there I came here by request of G. P. McNulty, to attend the meeting of the executive board on June 28. Arrived on the 26th. On the 29th we attended a meeting of No. 1 in a body. They had a grand meeting, as they had the election of officers. I think good results will come from this meeting of the executive board, for we can lay down plans whereby we can work, and with the assistance of the entire Brotherhood we can do much.

DALE SMITH.

St. Louis, Mo., July 1, 1904.

Fifth Vice-President.

June 1 I was successful in securing an interview with the contractors in Des Moines, at which time the matter was discussed and another conference secured. Nothing of any importance was arrived at in these meetings, and I continued to work in an effort to break their ranks. On June 7 I secured a settlement with the Arthur Franzen Company, which had secured practically all the construction work in and around Des Moines, and which settlement was indorsed by Local No. 55. In this settlement we secure the reinstatement of the old men at the old scale of wages and eight hours, nothing but union men to be employed. I spent another week endeavoring to bring some of the other contractors into line, but to no avail at that time. The boys have, however, established a co-operative shop and are doing the bulk of the repair work and small jobs, so that they now control about all of the work in Des Moines at the present time. From the appearance of things the other contractors will be forced into line. On the 15th I left for Minneapolis, arriving there on the morning of the 16th, just in time to meet the lawyers and attend the injunction case against Local No. 292, and am glad to inform the brothers that the case was thrown out of

court. The conditions of the trouble of No. 292 remain about the same. I called on some of the unfair contractors, and was met with a very bold front. They informed me that they had nothing to treat with us about. I attended a meeting of No. 292 and gave them some instructions. After looking over the ground I decided that there was only one thing to do, and advised some of the leaders as to my policy, and I believe, if they follow this policy, that in the end good results will follow. On the 16th I visited the general offices of the Northwestern Bell Telephone Company and succeeded in effecting a settlement for all of the men in their entire district. The 17th and 18th I was in conference with the Twin City Telephone Company, which company operates in about the same territory as the Bell, and succeeded in getting a settlement with them for all the men in their employ. This covers linemen, trouble men, foremen, assistant foremen, cable splicers, linemen's apprentices, cable splicers' apprentices, switch board men, inspectors, installers, division men, and cable inspectors. The scale secured was practically the same as the one adopted by the North Central Interstate Conference of Electrical Workers, except that in Duluth and West Superior the linemen get \$70 per month and nine hours per day for six months and \$65 and eight hours a day for the other six months. This means the end of the trouble that has existed in these two places for the past eleven months. The conference met on the 18th and 19th and indorsed and accepted the settlement made by me. Considerable business pertaining to the district was transacted at this meeting, and every one seems pleased that conditions have been made.

On the 20th I visited St. Paul and met several brothers there who had grievances to settle. In company with Business Agent Hurd I visited an unfair job and we succeeded in settling the difficulty. I then attended a meeting of No. 23 and was given a hearty reception. The next few days I put in with the business agents, transacting business in and around the Twin Cities. Then I went to Madison, Wis., where they have a little trouble on. I called on Mr. Harper, the president of the company, and

placed the matter before him. I got the men together and talked to them, and I think that the matter can be settled satisfactorily. I then left for St. Louis to attend the meeting of the executive board, which had been called by Grand President McNulty, stopping off in Chicago for a couple of hours to arrange some business, and arriving here Monday evening, June 28. On that evening I visited Local No. 59 with the Grand President, and gave them a talk. Since then I have attended meetings of Locals No. 309, No. 1, and No. 462. Since I have come here trouble has arisen in the following locals: Nos. 2, 367, 34, 226, and 372, and I will handle their cases as soon as possible.

The executive board has found a great deal to do at this meeting and we are holding sessions from 8 a. m. until as late as 2 a. m., and I know that much good will be accomplished.

Members, please be careful about using the code in telegraphing me, as some seem to get it slightly mixed. Also, owing to the depression in business generally preceding a Presidential election, the locals should be more than careful about taking hasty action.

F. L. WITTERS.

St. Louis, Mo., July 1, 1904.

Sixth Vice-President.

In the closing of my last month's report I stated that I had just arrived at Beaumont, Texas. On May 31 I met the brothers of Local No. 308. There not being any great amount of work there, it has brought the local down to a very few in number. But the few that are there are holding their meetings regularly and they have a good small local. On June 1 I attended a joint meeting of Locals No. 221 and No. 308, with very good attendance. Work with the outside local is just about as it is with the inside. But No. 221 has quite a number of its members working in the surrounding oil fields, which is a great help to them. While there I made an attempt to get the men in that were working for the Bell Telephone Company, but failed. On June 2 I attended a labor mass meeting, where the Rev. J. S. Myers, of Fort Worth, Texas, delivered his famous address on "Trades Unions and the Golden

Rule." The meeting was largely attended, and I think the different crafts of Beaumont will be greatly benefited by it. On the night of June 2 I went to Lake Charles, La., with the intention of organizing a local, but there were not enough men there who were eligible to membership to get a charter. On the 3d I went to New Iberia, La., to visit Local No. 386. Although the local has every man there who is eligible, there are only a very few of them. The president and two or three of the members being out of town, we were unable to have a meeting. I met what few were there. Sunday, June 5, I went to Morgan City, La.; found a few men there who were anxious to be organized, but there were not enough to get a charter. I went to New Orleans on the 6th, and met the president and several members of Local No. 281. As it was late when they received my message they were unable to get a meeting for that night. So I arranged to meet them on the next night, which I did, and had a good meeting.

On the 9th I attended the regular meeting of Local No. 130; had a good meeting, but not as well attended as I would liked to have seen. Local No. 130 had been thinking seriously of going on a sympathetic strike with the carpenters, bricklayers, and other trades that have been out for some time. I advised them to live up to the contracts that they had with the different shops in the city and not to break them in any respect. On the 10th I went with a committee from No. 130 to call on two firms which the local had agreements with. We called their attention to the fact that they were not living up to their part of the agreement in some respects. They seemed to think that they had not broken the agreement, but promised to be more careful in the future. The night of the 10th I attended special meeting of Local No. 4. I must say that I was surprised to see so few members present. I hope the brothers are not that slow in coming to their regular meetings. The local has very good conditions in regard to the street railways and light company, but it seems that the majority of the members are standing back, depending upon a few of the old stand-bys to hold these conditions for them. It was reported at the meeting that there had been three men dis-

charged from the Cumberland Tel. Co. because they had joined the local, and that the company had notified some of their men that they would have to quit the union or their jobs. On the 11th I called on the superintendent of the telephone company and called his attention to the facts as just stated. He said so far as telling their men they would have to quit the union was true so far as their foremen were concerned, but that they had not said anything of that kind to their linemen. He also stated that the three men referred to were not discharged for joining the union, but were discharged because they were not giving satisfaction. On the wind-up of my interview with him he said if the local had a proposition to make him whereby he could work union men and have some assurance that he would not be having trouble every few weeks, that he would consider it. I assured him if he had any desire to work union men that we would keep all trouble down as long as they showed a disposition to do the right thing toward us. I reported what had occurred to some of the members of Local No. 4 and asked them to have the matter brought up at their next regular meeting, when I guess they will draw up an agreement to present to the telephone company. On the 12th I went to Baton Rouge, La., to see what could be done in regard to organizing a local there. I met with some very discouraging talk at the start, but I saw all that I could and got them to promise to meet me that night. We met with twelve present. After a little talking and explaining the ways and objects of our organization, they all signed up. There were several more who were unable to get up to the meeting that night, but said they would come in when the charter came. On the 14th I went to Shreveport, La. Had a special meeting of No. 194 with good attendance. There were a number of talks by different brothers and myself. The local called a special meeting for the next night for the purpose of hearing a report from a committee that was out to draw up and secure an agreement with the different shops. I met the committee the next evening and found that they were not ready to report, so at the meeting I recommended that the matter be left in the hands

of the committee until such time as they could bring in a full report. I stayed with the boys until train time that night. I then left for Tyler, Texas. I arrived there on the 17th, and met the brothers of Local No. 314 that night. There are only a few men left in Tyler, but they are trying to hold things together. There is some talk of another light plant going in there. If it does it will help them out. On the 18th I went to Palestine, Texas, and found Local No. 388 with very few members, but they are determined to keep things going. After the meeting that night I left for Dallas and arrived there on the 19th. On the 20th I attended the regular meeting of No. 188. We had a good meeting, and I had the pleasure of installing the newly-elected officers. There was a movement started to try to get in the non-union men of the city. We arranged for an open meeting for the following Friday night and the non-union men were invited. While there were very few of them present, there were several applications sent in, and all that were present signed up. On Thursday night, the 23d, I attended the regular meeting of Local No. 69. I am sorry to say that there was a very poor attendance. I had received a communication from our Grand President stating that he had called a meeting of the executive board at St. Louis for Tuesday, June 28. So, on Sunday, the 26th, I left for St. Louis. The board went into session Tuesday morning, and have been holding day and night sessions, with the exceptions of Wednesday night, the 29th, when the entire board attended the regular meeting of Local No. 1.

J. P. CONNOR.

St. Louis, Mo., July 1, 1904.

Seventh Vice-President.

My last report was written from Los Angeles on the 31st of May, and from that until the 14th of June I spent the time going from house to house and gang to gang, trying to get the men who are working at the business and are not in the Brotherhood to join. I also went to Pasadena in company with Brothers Lofthouse and Culver and installed a sub-local to Local No. 61. On the 14th I received a telegram from the secretary of Local No. 57, saying that the men who were working for the Rocky

Mountain Bell Telephone Company were out, and I immediately wired that I would leave on the first train for that city. I took the 1:40 p. m. train for San Francisco on the 15th, arriving there at 7:30 the next morning; spent the day straightening out some matters which needed my attention, and left on the train at 6 that evening for Salt Lake City, where I arrived on the 17th. I found about 150 of the linemen who were in the employ of the Rocky Mountain Bell Telephone Company out on strike. I attended a special meeting of the local that night and requested that the strike committee should accompany me to the company's office, which request was granted.

We called at the office of the company the following day and held a conference with General Manager Murray, who desired to do the right thing and acknowledged that the boys had just cause for complaint, but claims that they had acted hastily in going out. He said things could have been adjusted without going to that extreme, and as both sides had only one desire, that being to get along harmoniously, and the trouble having been caused through three sections of the agreement having been construed by the foreman different from what the local and the manager had construed them, they agreed to submit the points at issue to a committee of two from the company and two from the local, they to choose a fifth man to redraw these sections and to define them in such a manner that there could not be any misunderstanding in regard to them in the future.

When this was settled, the men voted for a return to work. All the boys returned to work on the 20th, having been out just seven and one-half days. On the 20th I received a telegram from G. P. McNulty, requesting me to come to St. Louis, to attend the meeting of the executive board. Having received a communication from Local No. 316 of Ogden to go there to settle some constitutional questions, I went there that evening and met the committee. I have since taken questions up with executive board and they will be notified by the secretary of the E. B.

The committee has been in session continuously since the 28th.

M. J. SULLIVAN.

St. Louis, Mo., July 4, 1904.

TIME PERFECTED BY ELECTRICITY

By J. E. PRICE

IT IS possible that Adam and Eve cared little about the flight of time. They were so very happy in their delightful Eden that all hours were the same to them. But when Ad. and the old woman ate the fruit of knowledge and left home in consequence, things were different; he had to hunt for a living, and then began to mark the position of the sun in the sky in order to tell when to return home from the chase.

And thus man first noted the flight of time.

As the years went by and mankind increased, the sun-cast shadows of trees, rocks, etc., were observed as time marks; and as centuries fled on man began to construct means of telling time, on dark days and indoors. The Chinese—those originators of many things—took up the matter of time-marking, one of their first inventions in this particular being a “water-clock.” But this could hardly be called a clock, because it had no works and consisted simply of a series of tubs arranged one above another. The water flowed from first tub to second and so on, each tub having its time scale, exposed as the water fell. The hour-glass, the scale candle, the machinery clock and watch, came along in their order, and all through this progress of time the sun dial was in evidence, even down to the nineteenth century. These indicators were often ornamental as well as useful. One owned by the Prince de Conti was made of ivory; it was finely carved, contained lettering and figures, and, besides its sun mark, there was also attached a magnetic needle for determining declination. This old dial shows that the magnetic needle, at Paris, pointed in 1541 about 7 degrees east—this being the oldest known value at the French capital.

The beginning of time was with the beginning of the sun; and the latter still has a “corner” on time, for no one can bring the fleeting seconds, minutes, and hours to accurate record without first consulting Mr. Sun at proper time and with fitting instruments. And no one knows this better than the astronomers at the United States Naval Observatory. Out there (on Georgetown

Heights, near Washington) time is “made” and given away.

I say the sun must be consulted in the matter of making time, but it is only one of the references, and is not always perfectly reliable. So the standard time clocks are kept straight also by the aid of so-called fixed stars. Up in the central dome of the Naval Observatory there is a 12-inch equatorial telescope and in a separate instrument house in the grounds there is a transit circle instrument, both of these telescopes being used to obtain time data. The 12-inch instrument has stretched across its outer lens two spider webs, forming the transit field. With the telescope fixed on the meridian point the observer watches until the star comes into the space between the spirated webs, when he touches an electric button, and instantly a time record mark is made on a continuously moving chronograph situated in the dome and carrying an inking point, which responds to the electric current.

The record thus gotten is compared each day with a time chart and with the standard clock, and if there is any difference this is figured out according to chart time and the clock is corrected.

The standard clock is thus kept absolutely accurate, and it also records its movements by means of electric current on a sheet carried by a clock-work chronograph.

Now let's see how time is distributed over the country. This is done principally by the Western Union Telegraph Company—which, it has been said, makes a million dollars out of this business(?)—and thousands of miles of wire (the amount of wire used by all commercial companies in the United States is 1,248,602 miles) is used in the time distribution.

Until the establishment of a standard time service each part of the country, each locality, had its own time, according to its meridian of longitude. But, of course, as meridians differ in different longitudes time thus obtained would not do for the operations of railways over vast systems, and for other purposes. So to remedy this dif-

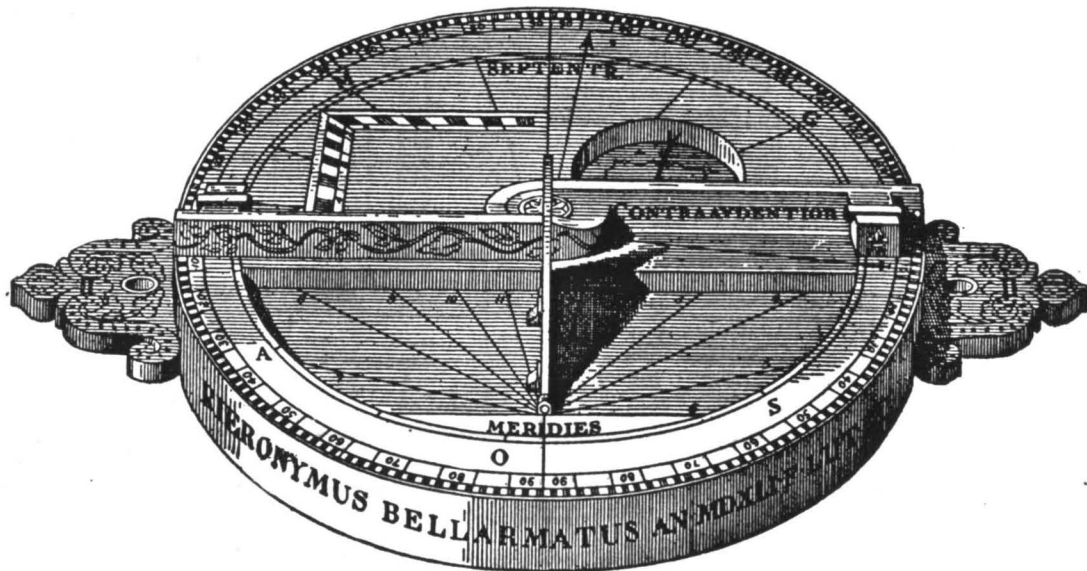
faculty a universal time system was devised. The country was divided into four time sections, each exactly one hour in time difference from the adjoining division. Thus, when it is 12 o'clock at New York, it is 11 o'clock at Chicago, 10 o'clock at Denver, and 9 o'clock at San Francisco. These different standards are called Eastern time, Central time, Mountain time, and Pacific time, and the time of all places in one of these divisions is exactly the same, with out regard to the local time.

In this country time is calculated from the meridian that is 75 degrees west of Greenwich; and when the sun is exactly above this line it is noon at Washington,

the operators connect their instruments with clocks and time balls.

The sun has now taken position exactly over the 75th meridian; the ten second pause in the clock beats is broken by a single tick; the hands of thousands of clocks, no matter how they are pointing, spring instantly to the twelfth hour numerals; time balls fall. It is 12 o'clock. The electric current has not only given this information, but it also has set all the clocks in its time circuit.

One of the largest clocks in Washington, which has to do with electrical current, is located in the office of the electrician at the Navy Yard. This clock, besides keeping



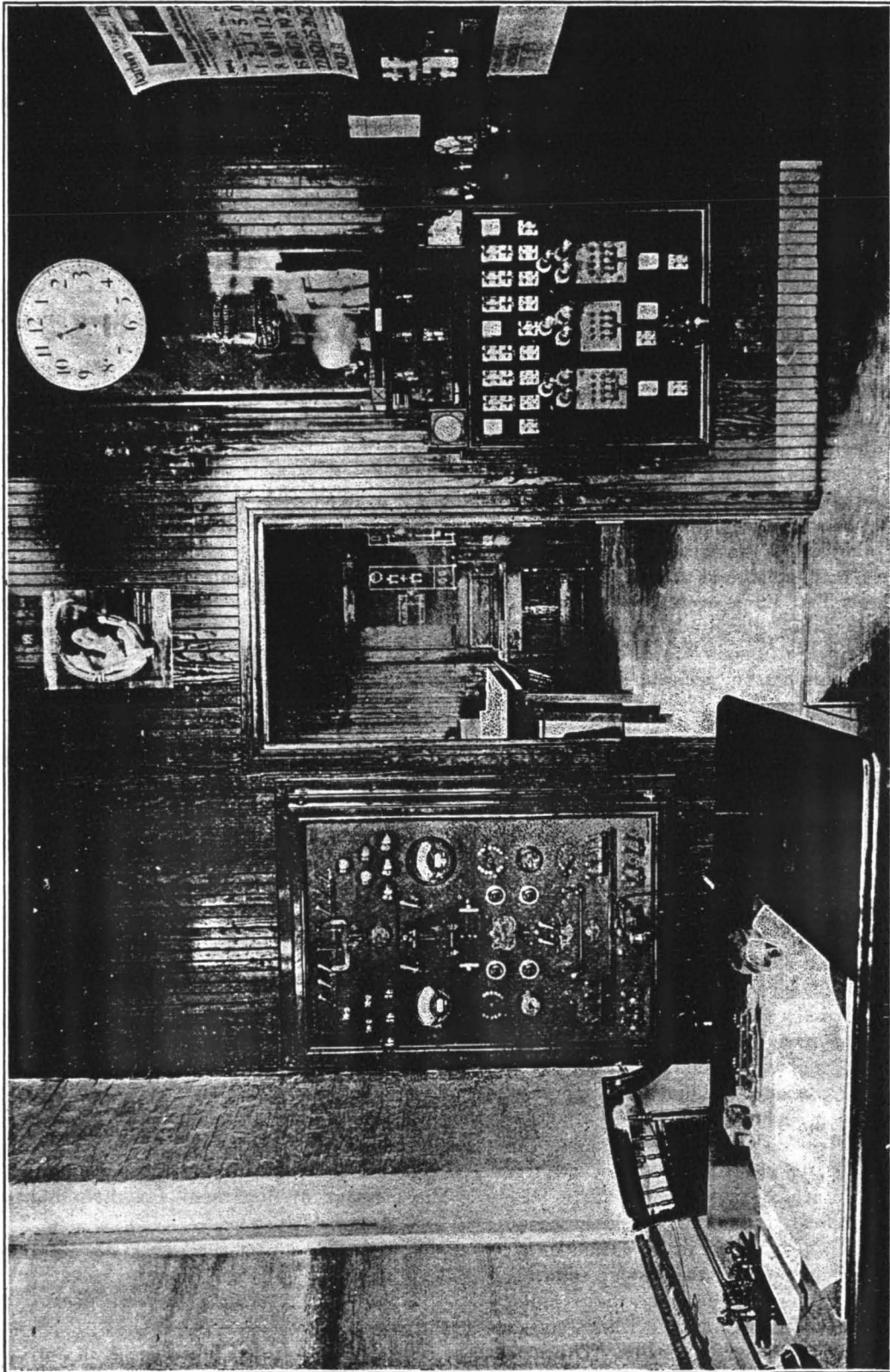
Philadelphia, New York, Boston, and other places in the Eastern division.

At the Naval Observatory, when noon-time approaches the chief time officer gets ready for business, and at three minutes and fifteen seconds before twelve, he switches on the electric current, and the beats of transmitting clock are sent over the wires to telegraph offices in Washington and New York. This is the signal to telegraph operators, advising them that the noon-time message is about to be sent. They at once begin to connect with other cities and towns, and soon the Observatory clock is heard ticking in hundreds of telegraph offices. The next notice is the stopping of the beats at ten seconds before twelve, and

accurate time automatically through its electric system, rings the working and quitting work bells of the various shops in the yard. It has in this connection a switch-board, and its current force is obtained from a storage battery situated in an adjoining room.

The Naval Observatory also uses its accurate time system in connection with the testing and correction of chronometers used in the United States Navy. Each ship has two of these, and before they are put in use they are sent to the Observatory, where they are subjected to extreme degrees of heat and cold, in order that they may be able to withstand the influence of any kind of climate without losing or gaining time.

July 1904



THE STANDARD CLOCK

As the tests go on their time is frequently compared to that of the Observatory's standard until accuracy under all conditions is, as nearly as possible, secured.

The Observatory has in its possession an old chronometer used on an American polar expedition, which met with disaster. For several years this timekeeper lay buried in the snow and ice; but when it was found—by an English polar expedition party—it required little more than winding up to set it marking time easily and correctly.

A WIRELESS TELEGRAPH PATENT.

A British patent has been issued recently to Professor Reginald A. Fessenden, which relates to improvements in wave telegraphy. An abstract of the patent is given in the *Electrician* (London), June 3. The patent has for its object the sending and receiving of Hertzian waves in such a manner that any number of stations, equally close together, may be worked simultaneously. The methods that have been employed heretofore for this purpose depended upon a change in the intensity to effect the signal, and for this reason, according to Professor Fessenden, they have failed. To accomplish this result by the new system, the signals are produced by changing the periodicity of the oscillations, at the same time maintaining their intensity constant.

The principle of the patent is explained by considering a resonant curve. This is nearly horizontal, except when it rises rapidly as the frequency approaches true resonance. If a station is in tune with this frequency, a slight change in the frequency will produce large variations in the intensity of the signal received. On the other hand, since the curve is nearly horizontal for frequencies not near resonance, slight changes in the frequency will have no appreciable effect upon such stations.

The following are the claims made: First, a system of electromagnetic wave telegraphy, in which each station has a steady state impressed upon it by other sending stations, which state can be varied only by stations signaling in the proper tune; second, signaling by changing the frequency of electromagnetic waves, without substantially changing their intensity. The patent describes a means for accomplishing this

change in the frequency without a change in the energy sent out. This may be done by short-circuiting a part of the inductance in the sending circuit. At the receiving station the inventor prefers to employ a receiver of a type whose indications depend upon the relative, and not upon the absolute, amount of energy received.

LOVE THYSELF LAST.

Love thyself last. Look near; behold thy duty

To those who walk beside thee down life's road;

Make glad their days by little acts of beauty,
And help them bear the burden of earth's load.

Love thyself last. Look far and find the stranger

Who staggers 'neath his sin and his despair;

Go lend a hand, and lead him out of danger
To heights where he may see the world is fair.

Love thyself last. The vastnesses above thee

Are filled with spirit forces strong and pure,

And fervently these faithful friends shall love thee,

Keep thou thy watch o'er others and endure.

Love thyself last, and, oh, such joy shall thrill thee

As never yet to selfish souls was given.

Whate'er thy lot a perfect peace will fill thee,

And earth shall seem the anteroom of heaven.

Love thyself last, and thou shalt grow in spirit

To see, to hear, to know and understand
The message of the stars. Lo, thou shalt hear it,

And all God's joys shall be at thy command.

—Ella Wheeler Wilcox.

Turpentine has been found to be an antidote for carbolic acid.

THE WORLD'S PROGRESS.

Chemists say arsenic is present in eggs.

Freight trains carry 1,250,000,000 tons per year.

Incombustible celluloid is a French invention.

Crossing the knees is a common cause of sciatica.

Germany has 10 trade journals devoted to tobacco.

The modern locomotive costs from \$15,000 to \$18,000.

There are seven miles of railroads for each 100 of area.

The daily mileage of the trains in this country is 2,750,000.

An Ambidextral Culture Society has been organized in England.

The International Seamen's Union has 40,000 affiliated members.

Montreal will spend \$3,000,000 in the improvement of its wharves.

The bamboo is said to grow sometimes at the rate of three feet a day.

Vessels of 85 steamship lines enter the harbor of Antwerp regularly.

The compound chemical lecithin tends to promote the growth of giants.

Prussia has 2,033 associations of stenographers, with 51,291 members.

This country's traffic makes use of 37,000 passenger cars and 1,600,000 for freight.

Dr. Kirkland reckons that in 90 days a toad will destroy 9,720 injurious insects.

Uncle Sam's passenger rolling stock would make a solid train 500 miles long.

To keep the whole German army in the field for one week would cost \$30,000,000.

It is estimated that Guatemala's coffee crop this year will amount to 1,000,000 sacks.

It would require the work of 25,000,000 teams to do the work now done by the railroads.

There are more than a dozen business women in Chicago enjoying incomes of from \$3,000 to \$10,000 a year resulting from their own enterprise, promoted and managed by themselves.

In 1902 there were 8,588 persons killed in this country by the railroads and 64,662 injured.

Four hundred and sixty-four trains enter and leave the New York Central Station every day.

Twenty-three miles of American railroads in 1830 expanded to over 200,000 miles in 1904.

A. W. Payne, of Bangor, Me., is credited with being the oldest practicing attorney in the United States.

The Patriotic League of Peru has raised the sum of \$414,000 for the purpose of building a man-of-war.

An extremely fine quality of green leather, made in Turkey, is manufactured from the skin of the angel fish.

The freight engines and cars engaged in the traffic of this country would make a string 9,000 miles long.

Mortality from cancer is very high in beer-drinking districts of Germany, such as Bavaria and Salzburg.

Labor unions of Georgia are advocating the establishment of a Bureau of State Labor Statistics and Mining.

The city authorities of Turin and Brescia, Italy, have granted permission for the building of electric tramway lines.

A New York department store employs a "social secretary," whose duty is to look after the welfare of saleswomen and cash girls.

Rev. Peter MacQueen, pastor of the First Parish Church, in Charlestown, Mass., predicts the union of all Protestant denominations.

General Stoessel, who is defending Port Arthur, is a Swiss by birth, and has received most of his military education in Switzerland.

Professor Shimsoe, inventor of the powder which bears his name, is a member of the Japanese corps of engineers and a chemist by education.

The deaths of women directly arising from intemperance have increased, said the Bishop of Croydon, England, by 150 per cent since 1875, as shown by the registrar general's returns.

The country's locomotives number 41,000, of which 10,000 are equipped for passenger service.

Count von Buelow, unlike Prince Bismarck, does not dislike newspaper caricatures. He is an enthusiastic collector of them.

It is estimated that about 4,500 travelers from the United States have visited Greece during each of the last four years and have annually left about \$1,500,000 in the kingdom.

The ribbon of the French Legion of Honor was recently bestowed by Admiral Duperre on a sailor who, in connection with the lifeboat service, had saved 348 lives in 35 years.

The average wage of a male school teacher in the United States is about \$450 per year. The average salary of a woman teacher in the United States is about \$350 per year.

Professor Justin H. Smith, of Dartmouth College, is at present traveling in Mexico, superintending the collection of material for a history of the war between Mexico and the United States.

Wabash passenger trains from the Union Station in St. Louis to the Fair grounds are made up of cars designed so that they may be converted into standard furniture cars after the Exposition.

In the comparatively small sales thus far made of American rice in Cuba it has given universal satisfaction, the people claiming that it possesses a richer flavor and greater nutriment than the Eastern rice.

While Mexico is older than the United States, and while its resources were exploited to a certain extent before the first white settlement in the United States, it is still a comparatively undeveloped country.

The Philippine government is in the market for school teachers. It has carried over 1,000 pedagogues half way round the world in an effort to educate the Filipino youth up to American ideas, and still wants more.

A meteorological station of the United States Weather Bureau, under the charge of Alexander McC. Ashley, formerly local forecaster at Syracuse, will be established at Honolulu.

The United States Senate will have among its members at the next session five former Cabinet officers, Senators Knox, Teller, Alger, Proctor, and Elkins.

Rear Admiral John J. Read, chairman of the Lighthouse Board, has retired from the Navy after 46 years of service. He was born at Mount Holly, N. J.

Francisco Attschul, ex-Secretary of Commerce, Agriculture and Public Works, of Honduras, C. A., is an exile from his native country and is at present in Washington.

Land around the bayous of Louisiana and Texas, which, until 1895, was classed as worthless, now yields \$25,000,000 worth of rice. About 100 Japanese expert rice-growers are in this region.

The loss of the government through the sale of land at \$2.50 an acre, under the timber and stone act, is estimated by the Commissioner of the General Land Office at \$100,000,000 to \$115,000,000.

There is almost no line of business or industry already established in Mexico which cannot be improved upon by modern American methods, and the field for new industries is almost unlimited.

In all things one must make haste slowly in Mexico. The American going there with the intention of residing and engaging in business should leave his impatience at delay at the border when he enters Mexico.

The four groups of statuary on the Broad street pediment of the New York Stock Exchange, just implaced, are attracting much attention and are described as a superb exhibition of high art and a fine demonstration of anatomy.

A rare case of longevity is cited in the lives of Mrs. Hanna C. Baker, Henry N. Spencer, John R. Spencer, and Mrs. Fanny F. Fowler, brothers and sisters, all living in Noank, in the town of Groton, Conn., whose ages aggregate 329 years.

The Boston Authors' Club visited the Whittier home, in Amesbury, Mass., recently. A feature of the event was the presentation to Mrs. Julia Ward Howe of a book which she sent to Whittier 51 years ago. The author had underlined and commented on various passages.

The traffic on the Kaiser Wilhelm Canal during the year 1903 shows not only an increase in the number of ships (22,038), but also an increase in the receipts of nearly \$47,000 over the previous year.

A fleet of turbine-driven steamships is to be placed on the Great Lakes by British capital at once. They will make the round trip from Toronto to Port Arthur or Duluth in eight days. The ships will carry 250 passengers and will run at a sustained speed of 16 miles an hour.

Under the laws of Bavaria it is forbidden to use any unmalted corn or mixed malt and unmalted corn or any substance whatever as substitute for or mixture with malt (evaporated or air-dried). For the brewing of brown beer only malt of barley may be employed.

While the United States is by no means fully developed as yet, its resources are now pretty well known and are being exploited, and within the past few years adventurous Americans have been seeking virgin fields for the application of their surplus capital and industry.

With the protection of a stable government, and equal rights and privileges with local capital, the amount of foreign capital which will be invested in Mexico in the next few years will be large, and for geographical and other reasons the larger part of this foreign investment will be American.

The cultivation of rubber in Siam has recently been started, some thousands of plants having been set out as an experiment. These plants, of the Para variety (*Hevea brasiliensis*), are said to be doing exceedingly well, although they have had no especial care, but have been planted indiscriminately in various places and under varying conditions of moisture, sun, etc.

The people now ask for cheap butter at a sacrifice of the quality. Nothing short of an increase in prices will permit the renewal of the business in Normandy as it was some years or months ago. An increase in price, however, seems very doubtful, as the London market is glutted with butter from Denmark, Finland, Russia, Norway, and Australia, carried to the market in refrigerator ships.

T. E. St. Germaine, a Chippewa, has just been admitted to the bar in Iowa, and is the State's first Indian practitioner at law.

The widow of the late Grand Duke of Mecklenburg-Strelitz is the only surviving sister of the late Duke of Cambridge. She is 82 years old, and has witnessed the crowning of William IV., Victoria and Edward VII.

Old Mother Smiles-at-Woo, the oldest member of the Winnebago tribe, is living with her people on a reservation in Nebraska. She is the only living Indian, so far as known, who was with the original Six Nations in New York State.

The national Congress has decided to build a railway from Timbo, State of Bahia, to Propria, State of Sergipe, at the expense of the Brazilian state. The government is empowered to make contracts for the building of this road, work on which must be begun within one year.

A year ago there was an almost complete destruction of the fruit and early vegetable crops in the region of Nantes, France. This year the situation is quite the reverse. The spring weather has been very propitious, and there is every prospect of the best fruit crop France has enjoyed for three years.

It is said of Sir Frederick Treves, the famous London surgeon, now in this country, that he has operated upon more than 1,000 appendicitis cases and has had only two deaths among his patients.

The machine industry of Germany was never in worse condition than at present. Two reasons are given for the decline: First, the great depression in industrial life all over the empire; and, second, the enormous strides in the use of gas engines and steam turbines within the last few years.

In 1891 the Australian trade of the United Kingdom amounted to \$252,824,408, whereas in 1901 it had actually receded to \$245,427,328. During that time Australian trade with Germany doubled, having risen from \$12,487,439 in 1891 to \$25,045,508 in 1901; its trade with the United States increased from \$25,850,848 in 1891, to \$45,170,853 in 1901, while the trade with France and New Caledonia had increased by \$3,893,200.

The number of new telephones put in by the Chicago Telephone Company in May was 1,556, making the total in service 108,884. The increase from January 10 to June 1 was 7,697 phones.

The Tammany Society was formed in New York in 1789, chiefly through the efforts of William Mooney, an upholsterer in New York City, its first grand sachem, to oppose the Federalists.

The Interborough Rapid Transit Company, of New York, has stationed special officers, known as "elevated specials," at the principal elevated stations on its system where the traffic is heaviest during "rush" hours.

The Queen of Holland is an enthusiastic farmer. A dairy has been established in connection with the royal castle at Loo and it is run on quite businesslike lines by its owner, large quantities of butter and milk being sold regularly from the dairy, which is now self-supporting and profitable.

Field Marshal Marquis Yamagata, of Japan, who has been appointed commander-in-chief of the forces in the field, has made the Japanese army what it is in spite of very precarious health. He is nearer 70 than 60 years of age, and for many years has been practically an invalid.

When a boy in his father's office George J. Gould learned the telegraphers' art, and he has kept it up ever since. A private wire connects Georgian Court, his home in Lakewood, N. J., with his office in Broadway, New York, and as Mrs. Gould also understands telegraphy, they are able to chat whenever occasion demands.

In the Chinese reeling mills the men are paid a maximum of 24 cents a day and the women 15 and 18 cents. There is no law in Japan regulating child labor, and children are employed at from 4 to 6 cents per day. In France it is seldom that a woman or a girl receives less than 30 cents per day in the reeling mills.

The appointment of George F. Bowerman as librarian of the Public Library of the District of Columbia, is announced. Mr. Bowerman was formerly connected with the editorial staff of the New York *Tribune*. For four years he has been

librarian of the Wilmington (Del.) Institute Free Library. He is a graduate of the Library School at Albany.

Dr. John Floto, who has just died in Oakland, Cal., was one of the oldest physicians in the United States, and his memory ran back to a sight of Napoleon on the march to Moscow. He came to the United States in 1830. He graduated at Jefferson College and from the Allentown Medical College, the first homeopathic school in America.

When James Gordon Bennett's yacht arrived from Europe the other day the persons who went aboard were astonished to see two cows. "What in the world does Mr. Bennett have cows on his yacht for?" a visitor inquired. "He does not like condensed milk," replied one of the officers, "so he carries his milk supply with him when he goes to sea."

REPORTING THE GORDON BENNETT RACE BY WIRELESS TELEGRAPHY

The *Gesellschaft fur Drahtlose Telegraphie* arranged to report, by means of wireless telegraphy, the Gordon Bennett race, which took place on June 17, on the Taunus course, in Germany. A description of part of the apparatus used is given in the *Electrician* (London), June 3. There were three wireless telegraph stations, of which the two smaller ones were portable, being mounted on two-wheeled carts. The principal station was stationary, and was erected at Saalburg, adjoining the temporary post-office of that place. The aerial wire there was supported from a pole. One of the other two stations was placed at Neuhaus, and the other at Gravenwiesbach, twenty-five and seventy kilometres distant, respectively. The aeri-als for these two stations were provided with balloons and kites, the former to be used in quiet weather, and the latter when wind prevailed. Each portable station was carried on two carts. One, called the power cart, was equipped with a four-horse-power water-cooled gasoline engine, directly coupled to a two and one-half kilowatt alternating-current generator. This cart carried 6.6 gallons of gasoline, which is said to be sufficient for a telegraph service of thirty hours. This cart also contained an arrangement for hauling in and paying out the small captive balloons.

The second cart contained the transmitting and receiving apparatus. The space on this cart was divided by a partition into two parts, the front compartment containing the high-tension apparatus, such as the induction coil, the Leyden jars, the spark-gap, and the high-tension transformer. In the compartment in the back were a Morse key, two receiving apparatus and one Morse writer. Two receiver transformers and one current reverser were fixed to the partition. On one side was a bell, and on the other side an outfit for receiving telegrams by sound, this consisting of an electrolytic detector and telephone. The receiving apparatus was mounted on a spring-suspended board. The portable stations were arranged for two wave-lengths—350 and 1,050 metres. The change from the one length to the other was effected by a small switch. The wire is 200 metres long in each case.

MEASURING INSTRUMENTS FOR ALTERNATING CURRENTS.

At a meeting of the Physical Society of London, held on May 6, a paper entitled "Some Instruments for the Measurement of Large and Small Alternating Currents," was read by Mr. W. Duddell. The author, after some preliminary remarks on the available means for measuring alternating currents, proceeded to describe three thermal instruments, which he has constructed for this purpose. The first instrument is essentially a sensitive Ayrton-Perry twisted strip ammeter, which is very quick in action for a thermal instrument, and has been used for observing and recording potential differences and currents which varied as rapidly as one per second. It is compensated for change in the surrounding temperature by forming the sides of the frame which holds the twisted strip with the same wire that the strip itself is made from. With the instrument exhibited a current of twenty-two milliamperes gave a deflection of one-quarter the scale distance, *i. e.*, 250 millimetres, at one metre scale distance. The mechanical periodic time is only about one-fifteenth second. Using this instrument in series with a high resistance, the author has made observations on the variations in the voltages of alternators caused

by cyclic irregularity of the engine. By working to a false zero it is easy to obtain ten millimetres change in deflection for 1 per cent change in the potential difference. The second instrument exhibited was a very sensitive thermal galvanometer called in the paper a "thermogalvanometer." It consists of the combination of a radiomicrometer of the "Boys" type with a very small resistance which is heated by the current to be measured, and which in turn heats the thermojunction of the radiomicrometer by radiation and convection. The principle of its action is as follows: A loop of wire has its two ends fixed to the two bars of a single thermojunction, a mirror is fixed to the loop, and the whole is suspended in a magnetic field by means of a quartz fibre. The heat from the resistance raises the temperature of the thermojunction and causes a current to flow round the loop, which is deflected by the magnetic field. The sensibility of the instrument depends on the resistance of the heater. Using a heater having a resistance of 13,910 ohms, a deflection of 250 millimetres at a scale distance of one metre is obtained with a current of thirty-one microamperes; a heater having eighteen ohms resistance required 800 microamperes to give the same deflection. To illustrate the high sensibility of this instrument, the author showed the large deflections produced by the currents through a telephone receiver even when the source of sound was many feet distant from the microphone; he also showed that if the thermogalvanometer was placed in series with the vertical receiving wire in spark telegraphy over a short distance large deflections were produced. The third instrument described was a switchboard instrument which works on the same principle as the last, only that the moving part is pivoted in the usual way. The author exhibited one of these instruments, arranged to give the whole scale deflection for only 0.15 volt, which can be used in connection with shunts to measure large currents; for instance, to measure 1,000 amperes, the power lost in the shunt would only be 150 watts. Transformers can also be used, as the power to produce the whole scale-deflection is only 0.3 watt. A similar instrument with a high resistance heater was also exhibited, giving the whole scale-

deflection for 0.1 ampere, which can be used as a voltmeter by putting resistance in series with it.

"NOTHING NEW UNDER THE SUN."

The first knife was, of course, a flint flake, and the earliest spoon a shell, to which primitive man learned in the course of ages to fasten a handle of wood.

Such articles as these, together with hammers, axes and needles, are easily recognized as having come down to us direct from savagery. It is, however, more startling to find that such a comparatively modern invention as the lift has been used for ages by tribes whom we designate as savage. The application of the principle of the modern vertical lift may be seen to-day among the bee-hunters of the Island of Timor.

To get at a honeycomb seventy feet overhead with nothing between it and the ground but a smooth and branchless trunk seems at first sight impossible without ladders or ropes. It is a simple matter to the Polynesian. He cuts a few yards from the tough stem of a creeper and forms of it a bush rope. With this he makes a loop around the trunk and his body. Jerking the loop a little above his head, he leans back and begins walking up, his bare feet pressed against the trunk. Repeating the operation, he gradually gains the top. The whole ascent is made without exhausting use of muscle by utilizing the principle of friction.

Cotton weaving has done more for Great Britain within the last century than any one other industry. The Indians of Central and South America have for centuries past used a loom so elaborate that ours is, comparatively speaking, but a slight improvement upon it.

We should never have had the Panama hat but for the quick-fingered Indians of the Isthmus of Panama. Even to-day their secret process for seasoning the grass blades used in weaving these hats remains unrivaled. Basket makers of the same region make baskets which will hold water without leaking—another invention which is quite beyond us.

Felting was invented by Polynesian savages, and brought by the Hawaiian natives to a perfection we have never excelled.

They not only made coverings for their houses and blankets out of felt, but by pounding the inner bark of certain trees succeeded in producing soft and comfortable seamless garments of this material, such as sleeveless coats and cloaks.

Mortar was made by the people of Tahiti when our ancestors were shivering in holes in the rocks. They dived into the sea, brought up great lumps of coral, burned them in pits, using wood as fuel, and mixed the lime they got in this fashion with sharp sand and water. With this mixture the ingenious savage plastered the walls and floor of his house, and a better mortar could not be obtained.

Another purely savage invention, which is perhaps the most familiar object of modern life, is the tobacco pipe—not only the common clay which the North American Indians moulded centuries ago out of the red sandstone of Colorado, but the wooden pipe, the prototype of the everyday briar.—*London Answers.*

MECHANISM VS. BRAINS.

"From the corn miller's little bell that sets up a fussy tinkling the moment the hopper runs empty, up to the calculating machines that are now to be found in banks and insurance offices, clearing houses and observatories, there are so many mechanical substitutes for brain workers that it is difficult at times to realize that it is, after all, only mechanism and not intelligence that is being evolved," said an employee at the Patent Office to a *Star* reporter.

"Some of the touches of what, for convenience, we may call mechanical intelligence to be met with in various odd corners of the industrial and commercial world are really quite amusing, and they have their prototype in that little bell of the old windmill.

"There is, for instance, to be seen in any screw factory, a different application of that device. The machinery takes hold of a rod of metal, pulls it rapidly along, gives the end of it the general shape of a screw, cuts the thread round it and the slot in the head, and then ships off a perfect screw.

"If you watch the thing actually making the screws the idea strikes you that it is really a piece of mechanism; but when the

machine comes to the end of its material and gives a sharp, impatient ring of the bell for the attendant to bring more, you cannot help laughing, and you would scarcely be surprised if, when the man came with another rod, the busy screw maker gave him a sharp reprimand for inattention and dilatoriness. In these days of phonographs, of course, it would be quite practical to make it do so.

"The machine by which railway tickets are printed gives another amusing little show of intelligence or what looks to be very like it. Railway tickets are not, as might be supposed, printed in large sheets and afterward cut up. The cardboard is cut into tickets first and they are printed one by one afterward.

"The little blank cards are put in a pile in a kind of perpendicular spout, and the machine slips a bit of metal underneath the bottom of the spout and pushes out the lowest ticket in the pile to be printed and consecutively numbered.

"It is of no use trying to print a bad ticket. The machine finds out an imperfect blank in an instant, and flatly refuses to have anything to do with it.

"These are simple instances of a good imitation of watchfulness and discrimination; indeed, the latter looks almost like conscientious care. They afford a droll suggestion of the trained intelligence of the learned pig or the performing dog; and we may find various degrees of the same. At the United States mint they have weighing machines for coins to which it is difficult to deny a very acute intelligence. The mint apparatus is more remarkable of the two.

"The new coins at the mints, however, are sometimes a trifle over weight, while sometimes, of course, they are under, so it is necessary to sort them out in three categories—light, heavy, and good. This delicate business is done with unerring precision by a long row of wonderfully clever little machines.

"Into these machines single piles of shining new coins are put, and quite automatically the mechanism takes each coin, puts it into the scale and in a fraction over two seconds—at the rate of twenty-five a minute—weighs it. If the coin is light the machine shoots it into its proper receptacle; if heavy

into another, and if it is of correct weight or with a margin as they call it, it is pushed into a third receptacle."—*Washington Star*.

TRACKLESS RAILWAY IN PRUSSIA.

A trackless railway is being erected by the community of Monnheim, which will be the first of its kind in Prussia. It will run from Monnheim to Langenfeld and will be about two and one-half miles long, with two short branches intended for freighting purposes.

The main line will serve for the transportation of persons, baggage, mail and freight. An extension is possible at both ends. The roadway from Monnheim to Langenfeld is about twenty-three feet wide, with a good basaltic cover about fifteen feet in width, running almost in an air line, with the exception of a few curves. A special contrivance for coupling is provided in order to keep an exact rut of all the cars, which takes the place of wheel flanges in ordinary rail trains. The buildings to be erected for use of the railway are a power-house, car barns, repair shop and offices. For the running of the railway a current of about 550 volts will be furnished. The power will be conducted to and from the cars, which are provided with electromotors, by means of two rotary poles, placed on top of the cars, and sliding blocks enabling the train to give way from ten to twelve feet.

The wiring will consist of two hard copper wires, with hard rubber insulators, carried by iron poles about eighteen feet above the middle of the road. For entering farmyards lying close to the road there will be used, instead of the regular wire, a connector and flexible cable fifty to seventy feet in length, by means of which the current will be transmitted to the motor car. Ordinary electric cars have but one pole, and the second pole of these railless cars serves for conducting back the current which is otherwise done through the rails.

When these trains pass each other one will remain standing under the wires and disconnect its current until the other has passed. The trains will consist of an electric locomotive for drawing two or three cars, driven by two electric motors of from twenty-five to forty horse-power, and will be furnished with the necessary illuminating

apparatus and brakes. The conducting crew has its place on the locomotive. The cars for carrying freight have a capacity of about five tons. These cars will be coupled in such a manner that the wheels of the car following run along-side the rut of the forward one, thus making a wide rut and avoiding the damaging of the road on wet days. Some of the cars will be open and some closed, and all will be fitted with the necessary brakes. Farmers' wagons can be attached to the end of the train, provided the ordinary tongues are replaced by shorter coupling tongues.

For the passenger service a motor omnibus, having a seating capacity of sixteen and standing room for eight, is provided. In case of an increased passenger traffic a similar car, but of lighter construction than the motor omnibus, will be added. Five or six double trips at the rate of eight to ten miles per hour will be made daily on schedule time. For the accommodation of the workingmen, in the morning and evening, two labor trains consisting of motor car and one or two passenger cars will be added. Freight will be carried on week-days only, as conditions may require, and during the intervals, between passenger trains. The fare for the entire trip will be six cents. For carrying freight the charge will be \$2.38 per carload of ten tons. Subscribers and parties doing a large freight business will be allowed a discount.

ELECTRICIANS WANTED.

It is said that the demand for electricians in the Artillery Corps of the United States Army is far in excess of the supply. The positions that are open require a certain amount of technical knowledge which seems to be the drawback. The salary of \$75 a month is the highest pay of any of the enlisted force, yet, notwithstanding this inducement, it appears that the restrictions in military life are too great to attract capable men. The department has existed for over a year, and so far only six applicants have been appointed who in all respects were qualified. Six others are being trained in the practical discharge of duties of the position at Fort Totten, N. Y., but there still remains thirteen appointments for master electricians.

THE KNOCKERS.

("Knocker"—One who continually finds fault. A disparager.—*Mod. U. S.*)

They are lurking by the embers of your fires,

They are stirring in the shadows of the trees,

And their lust is for the aim of your desires,
And their minds are on the prey that they shall seize.

Heed ye, then, their matchless cunning, O ye climbers!

They are children of the dark and dread the light,

But without his campfire's rim they growl with hate at him

Who has placed his little beacon in the night.

One may read a fearful envy in the glow
Of their angry eyes, unblinking in the dark;

Very softly do their footsteps come and go,
As they wait the dying flicker of each spark.

Do ye scorn their matchless cunning, O ye climbers?

Look ye well, then, that your campfires shall not die;

For their motto is, "We wait till we shall attain our hate!"

So they growl and then in deadly silence lie.

—J. O. T. in *Philadelphia Ledger*.

FOND PARENT'S PRIDE.

A reporter was endeavoring to find out the particulars of an accident that had befallen a boy, and was asking the questions necessary in such cases of the father of the injured lad.

"Did the little fellow stand the operations well?" asked the reporter.

"Like a major—came through it all night."

"Did he have to take anything?" continued the reporter.

"Not a gol darn thing but chloroform," was the proud reply of the admiring parent.

The following sign is displayed in a book shop in Chambers street, New York: "Dickens works here all this week for \$1.50."

ELECTRIC SPARKLETS.

Long-distance telephone communication has been established between Washington, D. C., and Bluemont, Round Hill, Purcellville and Hamilton, Va., on the Bluemont branch of the Southern Railway.

Dr. Charles Baskerville, of the University of North Carolina, and discoverer of the two elements of thorium, will be made head of the department of chemistry of the College of the City of New York.

Many thousands of dollars are being invested in electrical machinery for mining coal in Colorado. When electricity is installed fewer men are required to operate the mine and a larger quantity of coal can be hoisted.

M. Malcotti, an Italian engineer resident of Brussels, has invented an instrument which he calls a telecryptograph, and which will reproduce in print all conversations held over the telephone. He has already secured patents in several European countries and in the United States.

Electric power from Spokane, Wash., has now completely supplanted steam at the Hecla mine at Coeur D'Alene, Idaho, and that well-known property is operated by power transmitted 100 miles. The ore is now all mined and transported by electric power, while the mine is kept free of water by the same means. For this work about 220 h. p. are required.

The searchlight in the lighthouse tower at Heligoland is of a novel type, according to the *Model Engineer and Electrician*. The lamp consists of three arc lights, reflecting mirrors, and projector regulating devices 120 degrees apart, all operated automatically. Thus three beams of light are thrown simultaneously from the top of the tower.

Rear Admiral Rogers, commanding the Navy Yard in Brooklyn, recently received the first wireless telegraphic message sent to the yard. The board having in charge the tests of the various wireless systems is in session daily at the Navy Yard, and the *Topeka*, which has been fitted up with a wireless system, will go out to sea and attempt to communicate with the station at Navesink and also with the Navy Yard.

The daily papers are publishing the news that "Nikola Tesla and Prof. M. I. Pupin are jointly working on an invention, which, if successful, will go far toward putting an end forever to warfare. They are, it is said, planning nothing short of a wireless percussion for setting off explosives from a distance."

It is reported from Boston that Boston and Worcester street railway interests are considering plans for the building of a double track, high speed electric line from Boston to Providence, to enter into active competition with the New York, New Haven and Hartford Railway Company. The cost is estimated at \$2,500,000.

Members of the New York Rapid Transit Commission are looking with decided favor on the proposition made by the Schmidt & Gallatin syndicate, in connection with the Belmont interests of the Interborough Rapid Transit Company, to install a system of moving platform subways in the crosstown streets so as to provide an interchangeable transfer system between these subways and the Interborough subways and elevated lines.

A fireproof insulation for electric wires, which, it is believed, will remove one of the most frequent causes of fires in buildings in which electricity is used, was described recently by Dr. William H. Easton, of York, Pa., at a meeting of the Franklin Institute. The new insulation, which has recently been perfected after years of experiment, consists of a covering of asbestos chemically united by the action of heat, with a cement, producing a hard, flexible waterproof and fireproof sheathing over the wire.

Dr. M. I. Pupin, of Columbia University, lectured before the New York Electrical Society on May 25, on a method which he has perfected for sending telegraph messages. Dr. Pupin said that his invention would admit the sending of six messages simultaneously over a single line, to a greater distance, and more rapidly than is possible at present. He also said that a lighter wire than is now common could be used. Dr. Pupin exhibited a model of his invention and explained its workings in detail. This model is to be sent to the pavilion of the United States Patent Office at the St. Louis Exposition.

The Census Bureau issues a bulletin of some interest relating to the use of the telephone in the United States. From the figures given it appears that in 1902 there were something more than five thousand millions of telephone messages exchanged in the United States. This suggests some calculations which may profitably employ the arithmeticians.

A dispatch from Berlin announces the death of Wilhelm von Siemens, of the Siemens & Halske Company. He was a member of the famous Siemens family, whose inventions have been foremost in the modern industry of electrical engineering. He was frequently consulted by the Emperor William, especially in connection with the electric line at Zossen.

Alexander Graham Bell is quoted as follows in an interview in the *Boston Globe*: "When I began my experiments upon the telephone I had no scientific knowledge of electricity. I knew practically nothing about it, and had it been otherwise I could never have made the discoveries which culminated in my success. I don't believe any electrician could have invented the telephone."

Several important contributions have been made recently to the fund which is being raised by the American Institute of Electrical Engineers as its share of the expense in securing the ground on which the new engineering building is to be erected in New York. Mr. E. W. Rice, of Schenectady, has contributed \$1,000; Mr. Thomas A. Edison, \$5,000, and Dr. M. I. Pupin, \$5,000. This brings the total fund up to \$60,000 at the present time.

A dispatch from St. Petersburg states that Colonel Perky, in a communication to the Electric Technical Society on the discovery of a means of utilizing wireless telegraphy to explode submarine mines, says an apparatus invented by him can change the position of mines already submerged, makes mines attached to the bottom rise to the surface and explode and render fixed mines not connected to a port by wires harmless to specified vessels and dangerous to hostile ones. Colonel Perky refuses to reveal the details of his invention, which is causing a great sensation in naval circles.

Prof. Michael I. Pupin, Ph. D., of Columbia University, recently lectured on "Electric Resonance," before the Department of Electricity, Brooklyn Institute, and said that the subject of electrical resonance had acquired additional impulse in the past eight years, because of its connection with electrical signaling. He recommended students to make first a study of mechanical phenomena of matter in motion, and illustrated his talk by causing oscillation in a steel rod that was fastened to the end of a table. This problem of oscillation was explained, and by the aid of various instruments, run by an electrical machine in the small gallery, it was shown how the principle is carried out to its fulfillment in wireless telegraphy.

A telegraph instrument has been invented that is attracting the attention of railroad telegraphers. It is called a mecograph and is a small simple contrivance about the size of an ordinary relay. It is composed of a baseboard, a standard from which is suspended a pendulum, a key, two binding posts for a split cord, on the end of which is a wedge that fits in the Morse key, and one or two other essentials. From the bottom of the pendulum, which forms one pole of the wire, extends a flat spring carrying a platinum point, which, when set in motion, vibrates between two points or bumpers, one of which forms the opposite pole. The advantage the inventor claims for the instrument is that it reduces the work of the operator. In making a six dot figure but one movement is necessary.

A short time ago Prof. C. P. Steinmetz lectured on the subject of lightning before a large gathering at Union College in Schenectady. He demonstrated how modern investigations into the real character of lightning have revealed facts not previously accredited to it, and showed how much farther modern researches within the last generation have advanced the study of this part of electricity. Among other things Prof. Steinmetz said: "The exact amount of time occupied by a lightning flash is a matter of considerable interest, not only because of the difficulty in ascertaining the amount of time so consumed, but also because of the calculations as to other details of its nature which depend for their verifica-

tion on the finding out of this time. It has been estimated that one ten-thousandth of a second is about the amount of time and has been generally so accepted. Nevertheless this cannot be proven and all deductions from this hypothesis are naturally only hypotheses.

Mr. William Marconi, who arrived in New York a week ago after a successful experiment in talking by wireless telegraphy to both sides of the Atlantic from mid-ocean, will do more experimenting in Europe on his apparatus. He said that his efforts will be confined to working on an instrument by means of which rapid transmission can be obtained. "At present," he said, "we can send but 30 words a minute. That is a great drawback, and I shall keep at the work until I get something with which I can talk at the rate of ordinary telegraph instruments."

An article on obtaining electric energy direct from coal appears in the *Revue Pratique de l'Electricite*. The basis of the experiments was provided by the discovery made by Oswald, who filled two glasses joined by a tube with a solution of sulphate of potassium. In one of these glasses is inserted a platinum plate, in the other a zinc plate, and these being connected by a galvanometer, polarization takes place. By adding sulphuric acid to the glass containing the zinc, practically no effect follows; but by pouring it into the glass with the platinum plate a powerful current results. In a similar way Dr. Borchers used generator gas instead of coal, and chlorite of zinc for the electrolyte. The results were the same.

United States Commercial Agent Harris at Eibenstock has made a report to the State Department of the industrial schools in Saxony, which have been founded for the sole purpose of training young men to become competent and skillful locksmiths and blacksmiths. These schools are located in the following cities: Burgstadt, Grossenhain, Frankenberg, Meissen, Glauchau, Rosswein, and Zittau. The report contains an interesting account of the course of studies in these schools, and shows an extra cost for advanced training in electrical science. Special attention is called to the number of hours devoted to practical in-

struction in the workshop. There the students are drilled in the art of constructing and laying telephones, telegraphs, and lightning rods, as well as of drawing and constructing machinery of every description for the application of electricity and steam.

Some experiments to determine the influence of radium on the electric spark have recently been made by Prof. A. Stefanini and Dr. L. Magri. According to *Nature* the following results were noted: For discharges between two spheres, or between a positively charged point or sphere and negative disk, the discharge is facilitated by radium for short speaking distances and impeded for longer ones. If the disk is positive and the sphere or point negative, the discharge is impeded at small sparking distances within a limited interval; in general the effect is nil. For certain sparking distances between a sphere and disk it is possible for radium to impede or facilitate discharge according to which electrode is positive.

DISCOVERY AND INVENTION.

Practical men do not need to be told that there is an immense difference between the two words forming the subject of this article, but this fact is not sufficiently recognized by those who are prone to call themselves inventors. There are many problems in connection with mechanical science, and in connection with industrial undertakings that can be very readily solved by those familiar with the subject, but the fact that they are not solved is solely due to the experience which has possibly been acquired in connection with experiments that have demonstrated that the resulting advantages were not worth the effort, or to use a common phrase, "the game was not worth the candle." There are, however, to be found men with just sufficient mechanical knowledge to make them acquainted with defects connected with many mechanical engineering devices, and who heedlessly rush to inexperienced patent agents for the purpose of having their ideas protected that are to solve the difficulties they imagine no other person can so solve. Thus, as an illustration, it is well known that sea water contains gold, but it is gen-

erally conceded that at the present time efforts to extract such in anything like commercial quantities would be most unprofitable, and although the discovery of a method might be duly chronicled and recorded in the Patent Office, the practical result of the invention would be to extract gold from the pocket of the inventor rather than from the material upon which he would be working.

Tidal power machines are quite within the range of that which is practical to the engineer, and there is no difficulty whatever in constructing machines that will efficiently work under the incoming and outgoing flow of the tide, but that such machines can be made anything like commercially satisfactory has up to the present been considered an impossible or useless task to undertake; notwithstanding this, there are to be found every year fresh aspirants for fame, seeking to teach engineers how to produce tidal-power actuated machines. To reduce friction by introducing ball and roller bearings in connection with axles of railway stock is undoubtedly a very desirable object, and no great difficulty need attend those who propose to make such bearings as will yield to the inequalities of the wearing surface of the rail and the vibrations such as are set up under the different speeds of travel; but the practical or financial results that accrue from the adoption of such expensively constructed bearings has led to a disinclination on the part of those responsible to treat with favor the many models and devices that are offered for effecting these objects.

Safety devices in connection with lifts exist galore, and there need be no accident of any kind connected with a moving lift that would not have provided for it checks and safeguards such as would minimize inconvenience and absolutely prevent injury resulting from a failure of any main member of the apparatus; yet it is found that the difficulties connected with keeping many of the safeguards in working order imposes conditions upon the attendants and owners such as render their adoption practically impossible.

It may be taken for granted that most of the leading firms of engineers of to-day have had proposed and submitted to them

from time to time suggestions and models for overcoming some of the difficulties that they have long been familiar with, but concerning which they have felt that the cost of introducing such improvements would be greater than the advantages that would accrue and that such improvements could only be introduced by the imposition of other conditions and risks that would undoubtedly militate toward their being satisfactorily employed. That which engineers seek is not the hypothetical suggestion that may be termed a discovery, but rather the worked-out or embodied idea such as will bring it under the category or description of invention.—*Practical Engineer.*

PURCHASED ELECTRIC POWER IN FACTORIES.

One of the interesting papers presented at the recent convention of the National Electric Light Association, in Boston, was that on "Purchased Electric Power in Factories."

This paper classifies the various uses of electric motors in factories. The committee appointed at the convention of 1903 formulated and sent to every member of the association a circular letter, in which most of the common uses of power were classified, and certain questions were asked in regard to these classes. These questions were such as to bring out the more important points connected with purchased electric power. The total number of circulars sent out was 462. The number of answers received was 61. Nineteen reported that they sold no power to factories, 11 gave no information or answered but one or two questions, and 31 replied more or less fully. The sale of power to boot and shoe factories is small. Only 10 companies report selling any, and these have a total of 354 horse-power. This amount of horse-power is divided among 27 customers, an average of 13 horse-power to each shop. Twenty-seven companies supply 375 printing establishments with 6,247 horse-power. Ten companies report cotton factories as customers. There are 48 factories having 3,060 horse-power, an average of 63 horse-power to each factory. One company reports a sale of power to a woolen factory. This company has five customers, with 115 horse-power. Twenty-three com-

panies are selling power to 172 wood-working shops, where 1,953 horse-power are installed. The largest motor in this class is of 60 horse-power. Twenty-nine companies are supplying 334 metal-working shops, in which are installed 6,744 horse-power. The bookbinder is an unimportant user of electric power. Seven companies report 15 customers with 69 motors and 306 horse-power. The cost of production has almost invariably been reduced by the substitution of electricity for steam or gas, the principal factors in such reduction being the elimination of shafting, the ability to shut down the power a part of the time, the saving in attendance, and the low rate at which electricity is sold.

DER MAN DOT KNOWS IT ALL.

You see dot feller efry blace
Vhereffer you may vent;
Veddher in bolidics or trade;
He don'd vould gif a cent
Vor anyvone's obinion,
Vrom Peter down to Paul;
Sufficient vas he to himselluf;
Der man dot knows it all.

Der Phillipeanuts in der East
He haf brovided for,
He figured dot oudt long ago,
In fact, before der var,
For der Russo-Shapan qvestion
He schust haf got der gall
To say: "You leaf dot all to me;"
Der man dot knows it all.

Der Panamama muddle
Vas simblicity to him,
He'd know oxactly vot to do
Eef he vas "in der schwim."
Der droble vas, he vasn't,
Und hees vriends say, "Hire a hall!"
Vhen he commence der subject:
Der man dot knows it all.

Der bresidential qvestion
He already has looked ofer,
Can size oup all der candidates
Vrom All-Knee down to Grover;
Can dell you all dheir ancestors
Vay back to "Adam's Fall;"
You don'd could fool him much, py shings;
Der man dot knows it all.

He dells you barty secrets
In a vay you don'd could doubt it;
Oxblains about der tariff
Und how Roose velt aboutt it.
Mine cracious! how dhose candidates
He schust vill pool and haul;
Pity he vasn't "in it"—
Der man dot knows it all.

Ve meet him down in Vall street
Among der bears und bulls;
Off "pointers" he half blenty,
Und say he got some "pulls"
Ubou dhose Algamation chaps,
Und dot a "put" or "call"
Vas solid, eef he runs it;
Der man dot knows it all.

Und so it goes; mine cracious!
Vhen vill it efer schtop?
I find me oudt dhese schtill vas room
For merit on der top;
Und vhen it comes to peesniz
Among der first to fall
Vrom off Fame's ladder, look for him!
Der man dot knows it all.

—*Madison Daily Democrat.*

TELEPHONIC PRINTING.

A cable dispatch to one of the New York daily newspapers announced recently that an Italian engineer now residing at Brussels, had invented an instrument which he calls the telecryptograph, and which will reproduce in print all conversations held over the telephone. If he has really done this, the doom of the typewriter has been sealed, since one would then have only to talk into a machine, which would grind out the typewritten letters as fast as they were dictated. We surmise, however, that the inventor has not been working with English, a language, in which sounds and symbols often seem to have no connection. Probably the true meaning of the report is that the Italian engineer mentioned has been developing a machine of the telautograph class, and the reporter was a little hazy about its workings when he sent out the dispatch. We are not yet far enough advanced to build a machine which will convert spoken sounds into written symbols.—*Electrical Review.*

TELEPHONE AND TELEGRAPH STATISTICS

THE Census Bureau has recently issued statements concerning telephone and telegraph companies. The first of these includes all commercial telephone systems, all mutual systems, and all independent farmer, or rural lines that were in operation during any portion of the year, but does not include single lines of an exclusively private character.

TELEPHONE STATISTICS.

CONSTRUCTION, EQUIPMENT, ETC.	COMMERCIAL.	MUTUAL.	TOTAL.
Number of systems.....	3,157	994	4,151
Miles of single wire.....	4,779,571	70,915	4,350,486
Telephones of all kinds.....	2,225,981	89,316	2,315,297
Number of subscribers.....	2,048,736	88,520	2,137,256
Number of automatic pay stations.....	73,869	18	73,887
Number of all other pay stations.....	48,009	384	48,393
Farmer or rural lines owned by commercial systems:			
Number of lines.....	15,598		15,598
Miles of single wire.....	138,426		138,426
Number of telephones.....	121,905		121,905
Number of party lines.....	(1) 248,908	(2) 9,258	258,166
Number of telephones on party lines.....	808,571	77,581	886,152
Number of public exchanges.....	9,419	942	10,361
Number of private branch exchanges.....	7,883		7,883
Manual switchboards, total number.....	9,901	941	10,842
Common battery system.....	830	7	837
Magneto system.....	9,071	934	10,005
Automatic switchboards.....	53	1	54
Messages or talks during year, total number.....	4,971,413,070	99,142,275	5,070,555,345
Local exchange.....	4,851,416,539	98,433,952	4,949,850,491
Long distance and toll.....	119,996,531	708,323	120,704,854
<i>Employees and Wages.</i>			
Salaried officials and clerks:			
Total number.....	13,958	166	14,124
Total salaries.....	\$9,871,596	\$14,290	\$9,885,886
Wage-earners:			
Total average number.....	63,630	998	64,628
Total wages.....	\$26,206,065	\$163,670	\$26,369,735
<i>Revenue and Expenses.</i>			
Total revenue.....	86,522,211	(3) 303,325	86,825,536
Total expenses (including taxes and fixed charges except interest on bonds).....	60,871,002	281,821	61,152,823
Dividends paid.....	14,981,649	1,070	14,982,719
Interest on bonds.....	3,511,768	180	3,511,948
Net surplus.....	7,157,792	20,254	7,178,046
<i>Condensed Balance Sheet.</i>			
Total assets.....	449,485,693	2,686,853	452,172,546
Construction and equipment (including real estate and telephones).....	386,662,619	2,615,613	389,278,232
Stocks and bonds of other companies.....	9,938,342		9,938,342
Machinery, tools, and supplies.....	9,657,956	31,735	9,689,691
Bills and accounts receivable.....	30,610,294	19,383	30,629,677
Cash and deposits.....	12,271,718	20,122	12,291,840
Sundries.....	344,764		344,764
Total liabilities.....	449,485,693	2,686,853	452,172,546
Capital stock.....	273,388,432	661,265	274,049,697
Bonds.....	73,978,361	3,000	73,981,361
Cash invested (unincorporated system).....	4,571,318	1,589,981	6,161,299
Bills and accounts payable.....	44,411,639	79,427	44,491,066
Sundries.....	834,561	289,704	1,124,265
Net surplus and reserves.....	52,301,382	63,476	52,364,858

The telegraph companies report includes only commercial companies owned and operated within the United States, which were in operation during any portion of the year, no statistics being given for foreign telegraph companies operating in this country.

COMMERCIAL TELEGRAPH COMPANIES.

Number of companies.....	21
Common stock : *	
Authorized, par value.....	\$104,383,075
Issued, par value.....	\$99,870,225
Gross income	\$37,552,450
Total expense.....	\$28,490,219
Dividends and interest on bonds.....	\$6,084,919
Net surplus	\$2,977,312
Miles of wire operated.....	1,248,602
Number of messages sent during 1902.....	90,844,789
Number of telegraph offices...	27,352
Batteries in office :	
Primary, number of cells.	634,491
Storage, number of cells..	19,639

The final report will contain an analysis of the above totals and present statistics for other phases of the industry.

In addition to the reports obtained from commercial and mutual telephone systems, shown in the above table, the bureau secured reports of 4,985 independent farmer or rural lines, having 49,965 miles of single wire and 55,747 telephones. These figures added to the totals for the commercial and mutual systems give a grand total for the continental United States of 9,136 systems and lines, 4,900,451 miles of single wire, and 2,371,044 telephones.

A number of commercial systems operate in rural districts, but combining the totals for farmer or rural lines owned by commercial systems, mutual systems, and independent or rural lines, gives a total of 21,577 systems and lines, 259,360 miles of single wire, and 266,968 telephones, operated exclusively in rural districts.

In addition to the statistics presented above for the continental United States, reports were received for one commercial system in Alaska and seven in Hawaii, having a total of 4,732 miles of single wire, 2,493 telephones of all kinds, 3,461,000 messages or talks during the year, \$112,068 total revenue, \$76,307 total expenses (including taxes and fixed charges), and \$25,-

* Exclusive of the capitalization of The Postal-Telegraph Cable Company, which was reported as \$100,000.

858 paid in dividends, leaving a net surplus of \$9,903.

The final report will contain an analysis of the above totals and present detailed statistics by states and for other phases of the industry.

POINTED PARAGRAPHS FROM THE LABOR PRESS.

Cling to the union as the ivy clings to the oak, as without it you would have no protection.

An ounce of performance is better than a ton of excuse. Join a trades union and avoid a ton of excuses.

Will some wise man please rise and explain what constitutes fair wages, fair profits, and a fair rate of interest?

The union label enables the wife of the trades unionist to distinguish her husband's product from that of the fellow who would cut the former's throat for his job.

An ounce of co-operation between trades unionists upon trades union lines is worth a pound of co-operation between trades unionists and others upon purely business lines.

Did you ever see a horse in a burning stable trying to kick and bite the firemen who were taking it out? That is the way some men act when you try to get them in the union.

Child labor is a disgrace. Help to crush it out by shunning non-union products and by demanding the union label. Don't save a few cents on scab goods which represent the life blood wrung from little children.

Employers may continue to justify the "open shop" on the ground that it preserves liberty to the workers. The real reason, however, is that it preserves liberty to the employer to deny liberty to the worker whenever and on whatever pretext he sees fit.

These chats are for the interest of all and the offense of none. If there is a "shoe" in any of them "that pinches you" don't get mad about it—simply grin and wear it until you have acquired sufficient common sense and manhood to change the bad trait for a good one.

Teach your wife the necessity of purchasing goods bearing the label. Show us the individual employer who has voluntarily shortened the hours of labor or raised the salaries of his employes and we will show you that his employes have either organized or have been agitating the question.

The union men of this city and vicinity smoke in the aggregate an enormous quantity of cigars each year. With a little discrimination by them in making their cigar purchases a worthy home industry could be fostered and a number of fellow-unionists could be enabled to make this city their home, where their good, union-earned wages would be spent. Various brands of cigars manufactured here are union-made and of a quality easily equal to any of the scab-made products of the trust. Discriminate in favor of home-made union cigars.

A wise laborer is the man who realizes that his interests and those of the man for whom he works are identical, dependent one upon the other. It is also a wise employer who realizes the man he employs has the same right to live and enjoy the fruits of his labor, as he has. Labor unions are a necessity because all employers are not wise and look upon those that have to toil for them as rabble. Most employers look upon the toilers as mere machines, out of which they can make a profit and to be thrown on the scrap pile when old age or infirmity overtakes them.

A DOWN EAST TRADE.

Two old fellows in New Hampshire were the sharpest things in the way of bargaining. Cy Pettingill made brooms for a living and Ezra Hoskins kept a store. One day Cy came in with a load of brooms and the dickering began.

Cy was a man who could see a bargain through a six-inch plank on a dark night, and Ezra could hear a dollar bill rattle in a bag of feathers a mile off. Well, they began, and their conversation was something like this:

"Ezra, I want to sell you these brooms."

"All right, Cy, I'll take them."

Cy said: "I don't want any store bargains. I want cash for them."

They talked and gadded a while, and

then Ezra said: "I'll tell you what I'll do, Cy. I'll give you half cash and half trade."

Cy took a fresh chew of tobacco, pulled a straw out of one of the brooms, and said: "That'll be all right, Ezra."

After he had put the brooms in the store, Ezra said: "Here's your money, Cy, now what do you want in trade?"

Cy looked around for a spell, cocked his eye up to the ceiling, stuck his cud in his cheek, and said:

"Well, if it is all the same for you, Ezra, I'll take brooms."—*Columbia Record*.

NOT HER BOY.

"I shall have to ask you for a ticket for that boy, ma'am."

"I think not."

"He's too old to travel free."

"That's all hight."

"He occupies a whole seat and the car is crowded."

"That's the fault of the road, not mine."

"And there are people standing up."

"Well, that's not my affair."

"See here, ma'am, I haven't time to argue the matter!"

"It wouldn't do you any good to argue it with me."

"You'll have to pay for that boy."

"I never have yet, and I'm not going to begin now."

"Don't you expect to begin some time?"

"That's not the question now."

"If you haven't had to pay for him you've been mighty lucky, or else you don't do much traveling."

"Oh, yes; I travel about six months a year."

"You'll have to pay for him, ma'am, or I shall be obliged to put him off."

"That won't help you to get any money out of me."

"You know what the rules of the road are, ma'am."

"No, I never read them."

"How old is that boy?"

"I don't know. I never saw him before. You'd better ask the old gentleman who's asleep three seats up. They got on together at Beckenham street."

Camphor is now being made near New York by chemical means.

PREPARING FOR ACTION ON BOARD A BATTLESHIP.

A fleet of six gray battle-ships is steaming rapidly in a calm sea. Far ahead of the fleet can be distinguished the hulls and slender masts of several cruisers. These are the scouts, the "eyes" of the fleet, upon which the admiral relies for news of the enemy's movements. Other cruisers, out of sight of the battle fleet, are scouring the seas upon some prearranged plan. Let us, however, confine our attention to the battle fleet. These six great armorclads are all of one type, forming a homogeneous squadron. Each is of 15,000 tons displacement, of equal speed, and carries similar guns. To the eye of the landsmen they are like a half dozen dried peas, and their similarity is accentuated by the gray paint that covers them from truck to water-line.

They are formed in two divisions, not, as yet, in order of battle. The two leading ships each flies an admiral's flag. The divisions are six cables apart (1,200 yards), but the space between each unit is but 400 yards, and this interval, you will notice, is maintained with an accuracy won by constant practice. Little smoke issues from the tall, gray funnels. In the smooth sea the heavy ships have no perceptible motion, though you can see they are making progress by the white foam at the bows, and by the broad ribbon of foam churned up by the twin screws of each vessel.

Presently a red and white "answering" pennant streams from the masthead of the flagship. One of the distant scouts is signaling. She begins to close with the squadron. One perceives that other and more distant cruisers are also steaming back to the fleet. We guess the reason long before our keen-eyed signalmen distinguish the message. The enemy has been sighted some twenty miles to the eastward. Such is the welcome news. At once the flagship runs up a signal: "Prepare for action; form the order of battle." For in these days of fast steaming twenty miles' interval affords but comfortable breathing space, unless the enemy decides to run away. If he is bearing down upon us, we may be within range of him in a quarter of an hour. Such, it seems, is his design, so our ships must form at once into single line.

Let us note what preparations are being

made for the coming battle. The game has been rehearsed often enough, so often, indeed, that we can scarcely realize that this is at last the real thing, the grim reality. Take any ship at random. The same preparations are being made in all. Seven hundred men are going about their ordinary business. Suddenly a bugle blares out the familiar call to "general quarters," and ere the harsh notes have died away every man begins to run to his appointed station. Some make toward the great barbettes, where the 12-inch guns are snugly sheltered; some for the armored casemates isolating the 6-inch weapons; others, run to the light, quick-firers, mounted upon the super-structure. Others, again, and these mostly non-combatants (if any such can be in a ship of war), hurry below to the shell rooms and magazines.

The great shells for the barbette guns are being placed on the hydraulic lifts. A lever is pressed, and up they go. Another moment and they have reached the breach of the gun. A gunner closes the heavy mechanism of the breech with one hand. "Run out," orders the officer of the turret. Another lever does the business. The enormous weapons glide smoothly outward, their long necks projecting overboard as the barbette is trained. A dozen men and one officer complete the crew of this pair of heavy guns. The officer stands upon a little iron platform, peering above the turret, with a voice tube at his ear. The captain of the turret is peering through the telescopic sights.

Glance into one of the isolated casemates. The thick, armored door is shut now, inclosing the 6-inch gun and its crew in a box of steel. The gun has been cast loose, trained on the beam, and loaded within four minutes of the bugle call. Reserves of shot and shell are being whipped up into the casemates through a round aperture leading to the shellroom below. Twenty or thirty rounds soon accumulate, and the gun's crew will stake their lives against the entry of a shell through the casemate. Here, too, is an officer waiting directions through a voice tube. The men have stripped to their flannels and trousers. A tub of limejuice stands in a corner.

Down in the bowels of the ship the torpedo men are clustered around their sub

merged tubes. With great care they are adjusting the Whiteheads, and their movements are slower than those of the gunners, since a chance for a shot will not come early in the fight. Yet a lucky shot from the enemy might explode the torpedo in its tube. They accept the risk, these quiet-looking men, and long for close range later on. Then they will show the gunnery branch what a Whitehead can do.

The captain and the gunnery lieutenant are in the conning-tower—a cramped little structure bristling with voice tubes. It contains a small steering wheel, and is in communication with both barbetstes, the several groups of guns, and with the engine rooms. Reports are constantly being made through these numerous voice tubes. Thus: "All water-tight doors are closed, sir;" "barbetsstes ready for action;" "steam ready for eighteen knots, sir," etc. The chief quartermaster, a bearded veteran, sprucely dressed, grasps the spokes of the steering wheel and keeps an attentive eye upon the captain. Not a man can now be seen upon the upper deck, but in the thinly-protected top on the foremast, a few hands and a middy are clustered around a three-pounder gun.

All is now ready. The fleet increases speed, and the cruisers, closing in, one after another, take station to the rear. So we wait—a period of anxious suspense, since scarcely a dozen men of the 700 can see the approaching enemy. At last the twelve-pounder, which is our best range-finder, rings out with sharp report. We know that the hour has come. The captain gives an order through the tubes to each of the barbetsstes: "Leading ship of the enemy on the port bow, range 4,000 yards." "All ready, sir," comes the reply. A moment later the two pairs of heavy guns are simultaneously fired. The ship quivers under the shock of the discharge. The battle has begun. The 700 men think swiftly of home, of mothers, wives, sweethearts, of little children. A shell from the enemy crashes through a lightly armored section of the hull, bursts, and knocks two large boats into matchwood. Again the ship quivers and rushes on. Home is now forgotten. The men turn their minds to the bloody work in hand.—*Lieut. Charles Gleig (late R. N.), in London Morning Leader.*

RAILLESS ELECTRIC ROADS IN GERMANY.

For several years experiments have been made in Germany with railless electric roads. Among the most important are several in Westphalia and two in the vicinity of Dresden—the so-called "Haidebahn," connecting with an electric tramway terminus at the outskirts of the town, and the "Koenigsstein" road starting from Koenigsstein, a town lying on the Elbe about twelve miles above Dresden. A large proportion of the passengers carried by both lines are tourists or Sunday strollers.

The Haidebahn covers a distance of 3.1 miles. Wagons run every half hour, the fare being ten pfennigs (2.38 cents) for the shortest ride and twenty pfennigs (4.76 cents) for the full distance. The Haidebahn runs over a slightly undulating road, while the one at Koenigsstein covers about two miles of hilly highway. The speed of coaches varies considerably with the slope of the road, not, it seems, because of lack of motor force, but for the sake of the comfort of the passengers and the reduction of wear and tear on the machinery.

It seems that neither of these two lines has proved a marked success from a financial point of view, partly because located at points where travel is sparse, but mainly because of the expense in operating. The electric energy required to move cars over dirt roads exceeds by 100 per cent the power necessary to draw cars over iron rails, and this difficulty should be carefully considered by parties in the United States who contemplate similar enterprises.

GOT HIM KILLED AT LAST.

Gen. A. R. Chaffee, at a soldiers' banquet, told about a quartermaster, who entered on the books of his company, at the close of a certain battle:

"John Smith, killed July 7," etc.

But a day or two later it turned out that John Smith had not been killed after all. He had only been wounded. The quartermaster, on receipt of this news, wrote under the first entry:

"Killed by mistake."

Finally, though, there came a bulletin announcing the death of Smith in the hospital. This fact the quartermaster recorded as follows:

"Rekilled by order."

A THREE-PHASE PHENOMENON.

At a recent meeting of the Dublin local section of the British Institution of Electrical Engineers, an explanation was suggested by Mr. W. Tatlow for the fact that comparatively large currents, which would be attributed to faulty insulation, have been observed in wire which connects to the ground the star connection of three-phase alternators working at the Pidgeon House Fort station, in Dublin—an abstract of this paper is given in the *Electrician* (London), May 27. By applying Fourier's theorem, it was shown that the harmonic pressures of three (or multiples of three) times the main frequency are the same in magnitude and direction in all three phases at any moment, whereas the fundamental and remaining harmonics differ by 120 degrees in phase in each of the three phases. It follows from this that, in a mesh-connected winding, harmonic pressures of three times (or some product of three times) the fundamental frequency will, if present, add together and drive idle currents around the mesh. On the other hand, the fundamental and remaining harmonics form balanced sets, the sum of the three pressures due to any of them taken around the mesh being zero at any moment. In the case of the star winding, the harmonics of the third order will tend to drive current into or out of the star point equally in all three windings at any moment, and therefore they will be balanced. Hence harmonics of the third order are eliminated by the star connection, so far as pressures between any pair of the three wires coming from the machine are concerned. They appear, however, in the pressure wave taken between any of the three leads and the neutral point if they happen to be set up in the windings. Therefore, the waves of pressure between lead and lead, and between any lead and the neutral point, will differ in form. If the star point of the three-phase generator is connected to the earth, and the leads bringing current from the machine are in the form of a three-core lead-sheathed cable, the harmonics of the third order will give rise to a capacity current going to earth from the neutral point, and charging the cable sheath. It was shown by Mr. Tatlow that the means potential with three cores is not

zero, but a fluctuating quantity which will give rise to a capacity current, depending upon the capacity between the three cores taken together and the sheath. The capacity of the Dublin cables, connected two in parallel, amounts approximately to 1.5 microfarads, and according to Mr. Tatlow, the currents in the earth wire might be of the order of one ampere. He suggests that this deduction could be tested easily by bringing the coil connected to a telephone near to the earth wire, and observing the pitch of the note in the telephone.

EARLY TIMES OUT WEST.

In his reminiscences Henry Villard tells of Horace Greeley's visit to Colorado. He and a companion went in one of the express stages, and had met with a singular and perilous accident. In driving through a herd of buffaloes the animals, probably maddened at the sight of the red color of the coach, had attacked and upset it. Greeley had received a severe cut below his right knee, crippling him for several weeks. Being confined to his room in the hotel by his wounds Greeley was greatly disturbed by the sound of revelry by night that rose unceasingly from the barroom. Villard writes: "His wrath culminated on the third night of his tortures. I was fortunate enough to be with him, and thus became an eye and ear witness of what happened. About 10 o'clock he got up and insisted on limping to the barroom. His appearance, though his presence in the building was generally known, created surprise and instant silence. He begged for a chair, and, 'Friends,' said he, 'I have been in pain and without sleep for almost a week, and I am well-nigh worn out. Now I am a guest of this hotel, I pay a high price for my board and lodging, and I am entitled to rest during the night. But how can I get it with all this noise going on in this place?' Then he addressed one of the most pathetic appeals I ever heard to those around him to abandon their vicious ways and become sober and industrious. He spoke for nearly an hour, and was listened to with rapt interest and the most perfect respect. He succeeded, too, in his object. The gambling stopped and the bar was closed every night at 11 o'clock as long as he remained."

During this period of his life Villard got a glimpse of Western judicial machinery and gives this vivid picture of a term of court being held during a very hot spell in June: "The judge presided without his coat and with unbuttoned shirt thrown wide open. He sat thus disarrayed, tipped back in his arm chair, with his legs on the desk before him. The attorneys naturally followed his example, and made themselves as cool as possible. One marked incident has remained fixed in my mind. While one of the most loquacious attorneys was making a fiery argument he was interrupted by the judge, who called out to him: 'Jim, you had better keep cool in this hot weather and give me a bite of your tobacco.' The pleader stopped, pulled out his plug and carried it to the judge, who took a hasty bite, whereupon the proceedings were resumed."

Of his arrival in Colorado Villard writes: "We brought a mail of several hundred letters and newspapers, the announcement of which fact drew three cheers for the express company. It was a great boon, the last news from the Missouri river being nearly five weeks old. Of course, I was the center of attraction and overwhelmed with questions. Someone proposed that I should tell the news from the 'States' to them all, and I was made to mount a log and entertain the audience for half an hour with what had happened during the four weeks before my departure, for which I got a vote of thanks, and which secured me at once the good will of all the settlers."

MARCONI'S SUCCESS AT SEA.

The complete success of the first ocean daily newspaper and the maintaining of wireless communication with both shores of the Atlantic for three days was the news brought by Signor Marconi, arriving in New York June 11, on the *Campania*.

Two days out of Liverpool communications with both shores were established; from Cape Breton, Canada, 2,000 miles west, and Poldhu, Wales, 845 miles east. Throughout the voyage these communications continued unbroken and unhindered by passing ships, until the 8th, when Poldhu, 2,050 miles east, was dropped.

It was on June 7 that the first mid-ocean Marconi newspaper was published.

Already the Marconi Company has arranged to receive market quotations from the United States and England. As soon as the powerful transmitter is installed each ship will be equipped with larger offices for the reception of telegrams to the shore. Such messages will be sent hourly.

A PRACTICAL TALK.

Men, young and old, but the young more than the old, are imitators of those with whom they associate. In a world so great as ours, there are a vast number of different natures. Some are strong and some weak, but even the weakest among them have a certain amount of influence. It may be small—so small it is scarcely recognizable—but it is there nevertheless.

Emerson has observed that a couple living together grow to resemble each other; and that if they could live together long enough, it would be difficult for us to distinguish between them. An old Spanish proverb runs, "To live with wolves, you learn to howl;" and so it is with a man who possesses a considerable amount of moral force, if you associate with him, his influence on your nature, exercised by that force, is to your advantage, and *vice versa*.

Such a man will gain the confidence of his fellow workmen, so that they are ready to trust him at all times. He may not be popular with them, he may even be disliked, but they in their inmost hearts know that he is a man of honest convictions, that he is to be depended upon in any emergency; and it is to such men that they look for leadership.

If a working man possessing this quality of moral force is fortunate enough to come under the notice of his superiors, his chances for promotion are considerably greater than if he were lacking in moral force. For if this moral force were only an outburst with him once in a while, they would be quick to recognize it; and it is safe to say that in all probability they would not give him another thought; but, on the other hand, if it were permanent with him, they would realize his worth, and his chances for promotion to a place of trust would be greatly enhanced. A man of moral force in the workshop will give the tone to his fellows and elevate their entire aspira-

tions. The golden words that men have uttered, the examples they have set, live through all time.

It is moral force that characterizes the highest order of manhood and womanhood, the kind that can give a firm "No" as well as a "Yea." Moral force is a natural power like light and heat, and all nature cooperates with it; and this force, natural though it is, is no more to be withstood than any other natural force. Men of moral force are the conscience of the community in which they live. An honest man is naturally antagonistic to fraud, truthfulness to lying, the justice-loving man to oppression, and the pure-minded man to vice and iniquity. Such men have and do represent the moral force of the world; and but for the presence of such men in our midst—to antagonize continually that which is depraving—this world would be given up to selfishness and vice. A man, as a rule, in my opinion, who is blessed with a pretty good share of moral force, can hardly hope for a great deal of popularity—and certainly not any of the cheap kind which caters to tastes that are not of the best degree—for the very simple reason that his force of character would not allow him to do otherwise than condemn everything but that which he considered worthy. The friends that a man of this stamp would make, we may assume, would be honest and true, would stand for his defense, and would constitute that class of people known as good citizens.—*Harry Hall in Technical World.*

ENGINEERING AS A PROFESSION.

Engineering is a profession, not an art, nor a trade. It is a profession to exactly the same extent as medicine or the sciences or law, and is based upon principles universally true. The knowledge of these principles cannot be acquired by individual experience, nor by lucky discoveries. The experience of thousands of generations, the discoveries of ages and ages, logically arranged by the master minds of the past, constitute to-day these very principles. In order to become proficient these principles must be studied, their knowledge theoretically acquired. A trade can be learned only by actual practice. Skill in blacksmithing or moulding can be acquired only by

repeatedly performing the various operations of these trades. Add to this skill the individual conception of the work, the imprint of the worker's personality, and the trade becomes an art. In each case the experience of the individual is essential for the success of the work.

But engineering principles are universally true; you must be conversant with the laws of statics before you can build a bridge or a smokestack; the rules on heat must be studied before you do blast-furnace or steam-engine work. The most skillful application of these principles is a question of experience and talent, as it is also in other professions. An eye specialist will meet with but little success in treating general diseases; a criminal lawyer cannot draw a modern charter; an electrical engineer will build a poor rolling mill. A further requirement is a mind trained in logic, a mind which is taught to think, to grasp and weigh stipulations, to build up mentally a problem in its entirety, all its details, and conceive all conditions governing it and all which are governed by it. We have a number of men, proficient in their respective fields, who have never visited an engineering school, who substitute, as they proudly claim, practice for theory, who have graduated from the shop. These men ought to be proud for having mastered by individual study, perhaps unconsciously, these very principles which are taught in concise and lucid form in our neighboring schools. Such men are the exception—they rank far above the average both in energy and in mental outfit. And for this same reason I do not like these schools where they make you an engineer while you wait. We are overrun to-day by such men. We want honest schools, where the average scholar, not the genius, and not the "chump," may acquire honest knowledge by honest work.

Anyone who does not master these broad theoretical principles is not an engineer. Such a man might be able to copy, reproduce what he has done before, but he cannot accomplish anything higher. Engineering teaches us as the highest goal to apply known principles to new problems, to do creative work. This ability to do creative work we offer to the world as the reason for our existence. As you see this world

to-day, it is the work of the engineer. Where is the progress in the trades, where in art? Greek statues are still the choicest gems of art. Stone masonry and wood carving date back 4,000 years. The early Middle Ages produced masterpieces in wrought iron and bronze, which are far beyond the limit of our modern metal butchers. Slow and conservative has been the progress of medicine and law; and even the sciences have made their progress felt more in a physical than a material way. But humanity was awakened—this old earth all at once swung into a new orbit—when, some fifty years ago, engineering was recognized as a profession and studied as such. And it is not the man who invents photographs, or talks to the inhabitants of Mars, but the solid rank and file of well-trained, well-balanced engineers, who have wrought in the last hundred years such miraculous, dumfounding changes that the whole development of mankind up to that time seems incomparably slow.

The evolutionist has taught us that the rapid advancement of man began with the substitution of artificial tools for the natural implements. If this is true, we stand on the threshold of an equally momentous step in the development of the world, dating from the day when the engineer taught man to substitute the powers of nature for his own limited strength.

Engineering is a profession—the youngest one—and in one respect has to learn much from her older sisters. Both the law and medical fraternities watch with jealous eyes over the professional conduct of their members; and while they cannot prevent the existence of “shysters” or quacks, they take prompt and proper measures to demonstrate the characters of such men to the public. This ethical aspect of his station in the world, the engineer seems to have overlooked in his mile-a-minute development. His work, whether as an employe or as counselor of his clients, is a confidential one, requiring not only a mastering of his profession, not only skill in the handling of difficult problems, but a high degree of integrity, which alone can inspire confidence and will lend him that dignity which his profession deserves. The public might be dumfounded by the gigantic, or by the dar-

ing of your work; but, hearing that you are an engineer, they will look for the overalls and the oil-can. Let us pledge ourselves to guard our standing, to guard our dignity.—*W. Riddle, in Mining and Scientific Press.*

MADE PHOTOGRAPHS WITH PITCH BLENDE.

A press dispatch from Minneapolis, Minn., says that an interesting experiment has been made with radio-active ore by a photographer of that city. A photograph was made from the light emitted by the ore, in a closed box, which excluded all other light. The resulting “shadowgraph” is similar to those made with the X-ray, and proves the strength of the light rays emitted by the ore.

The ore was brought to Minneapolis by E. P. Townsend, of Collinwood, who recently returned home after several years spent in Northern Colorado. The region is, so far as is known, the only place in the United States where radio-active ore exists. It is found in two mines—the Wood mine, of which Mr. Townsend was formerly one of the lessees, and the Kirk mine. Both lie in Leavenworth gulch, in Gilpin County, about 50 miles northwest of Denver.

The ore from which the photograph was made is pitchblende, containing 55 per cent uranium. This ore is worth \$3.50 a pound. The ore holds considerable copper and other minerals with a trace of gold. Radium is generally found in uranium bearing ore. It is only within a few months, however, that the presence of radium in the ore from these mines was demonstrated by the investigations of a professor of the University of Colorado. Thus far no attempt has been made to extract the radium, but the companies operating the two mines plan to do so. The radium salts can be extracted without impairing the value of the ore for the extraction of other constituents.

The photographer who made the radium picture experimented several days in his efforts to obtain a good photograph. He first made the mistake of underestimating the amount of light emitted by the ore and gave the plate too long an exposure. This was a natural mistake, as the light from the pitchblende is not visible to the naked eye, even in the dark. The photograph

made was given 48 hours' exposure, and this was evidently too long for perfect results. In taking the photograph he laid a key and two coins on a dry plate and then upon these a piece of ore, four inches long, two inches wide, and a little more than an inch thick, weighing one and one-fourth pounds. He tried the experiment of printing from a negative by means of radium light, used as natural light, but found that the rays passed through the film, and left no impression, acting similarly to X-rays.—*Electricity.*

MAILBAGS CAUGHT AT GREAT SPEED.

Between six and ten mail stations are being erected on the line of the Baltimore and Ohio Railroad between Baltimore and Washington for the purpose of testing a new invention to be attached to the mail coaches. The device is to take and throw out mail at the same time and abolish the present system of throwing out the mail on the tracks.

The invention is very simple. Two steel bars are placed alongside the door frame with springs holding them together at the ends. A steel hoop, flat at one end, fits between these two bars, and on this hoop the mail bags are fastened with snap locks. Three bags can be attached to the hoop, while only one bag can be thrown out at one time by the present arrangement.

The stations erected alongside the tracks are somewhat similar to those already in use, except that a long iron bar is placed on the edge of the platform parallel with the tracks. This bar catches the hoop on the cars with the mail bags attached which extends about two feet from the car. On a pole running up from the platform the same kind of cars as are on the cars are attached, and a hoop with the mail bags for the coach is there placed and the mail catcher simply grabs it as the train goes by.

This invention obviates the fear of having the bags roll under the cars and be ground to pieces or burst as they touch the surface. Besides, it has the advantage of taking in and throwing out more than one bag at a time.

Mr. William A. Appleby, of Germantown, Montgomery County, Md., is the inventor.

He is about 60 years old and is paralyzed on one side of his body. From a model which he constructed the Baltimore and Ohio Railroad made the attachment and placed it on a mail coach in Mount Clare shops. A station has been erected in the yards at Mount Clare and several experimental tests have been made there, and those interested in it say that the trial was a most successful one. It is said that the faster the train runs the better the arrangement works. Sometime in the near future an official test will be made on the main line. Mr. Appleby has already patented his invention.—*Baltimore American.*

AN ELECTRIC AUTOMOBILE TEST RUN.

Some remarkable claims are being made by the Rhode Island Electromobile Company, Providence, R. I., for the new "Providence" battery, due to a recent test run from Providence to Boston on one charge.

The vehicle used in the test was a run-about provided with thirty-two cells and a two and one-half horse-power motor. On level roads the discharge averaged thirty amperes; on hills the variation averaged from sixty to seventy amperes; the highest discharge being 100 amperes. The company claims that the performance of the vehicle was all the more creditable because one of the cells was cut out two miles north of Pawtucket, which caused a drop of two volts, and the resistance of the copper wire used in cutting out the cell was also against the battery. However, at the end of the run the battery manifested no signs of exhaustion, and the cyclometer registered forty-seven and one-half miles. The voltmeter registered a drop of three volts, and as the limit of mileage is not reached until there is a drop of eight volts, it is evident that the machine could have gone a considerable distance further. The vehicle and cells are said to have been in regular service for a year and one-half and to have recorded 12,000 miles. In the construction of the cell, the active or working material is confined to the grid by a separator which keeps the plates apart, and while retaining the active material in its place in the grid, allows free circulation of the electrolyte to every part of the plate.

THE HIGH INITIATION FEE.

It seems quite the proper thing for many unions throughout the country to raise their initiation fee, so as to make it practically prohibitive for a man to enter. Some unions have absolutely closed their charters and refuse admittance to anyone. I have known unions to even legislate to keep out those who had made application through some petty ill feeling some member had for the prospective candidate. The high initiation fee, the closing of the charter, and the keeping out of candidates through personal spite is not unionism.

The first and paramount principles of unionism are the uplifting of the working class to a higher and broader sphere; the maintenance of stable conditions and the setting of wages so that a man may be able to lay aside a little for his old age. Such practices as the high initiation fee and the closed charter are detrimental to the interests of organized labor and are only a hindrance to the movement and not a benefit in the least.

The worst feature of the high initiation fee is that it keeps men out of the union who would be perfectly willing to come in, but who cannot afford the outlay of a large sum of money to join. These are just the men who, in cases of difficulty, step in and take the places of the union men, believing that they are in the right, and were barred by the high initiation fee. The time is coming when workmen in no matter whatever craft they may be engaged, will belong to the union of that craft. The closing of the charter and the high initiation fee are evils that will have to be corrected before this is accomplished.

Those who are members of the organizations in question claim that it protects their members; that it keeps the craft from becoming overcrowded. What are you going to do with those on the outside? They have to make a living and there is no organization on earth that can prevent it.

Suppose a contractor or firm wishes to employ a person whom they know to be thoroughly competent on certain lines. In order to work with the rest of the men he must belong to the union of his craft. In some cases he has not the necessary fee and in case of a closed charter cannot secure

admittance to the organization. The employer is compelled to take a man with possibly less experience and to pay him the same money that he could have hired the other man for, who had longer experience and was more skilled. This causes a breach between employer and employe, and which is very hard to heal. These are hard facts, but nevertheless true.

Unionism to-day is not what it was ten or twenty years ago. The labor movement, like the rest of the world, has become broadened and enlightened and has learned to meet conditions with advanced ideas. The high initiation fee and the closed charter are relics of the old line unionism, and in order to keep the tree of progress growing these must be weeded out. To prove that this is a fact take the largest and most substantial unions of the day; they all have a reasonable initiation fee and anyone is admitted who is competent and can command the wages and who will live up to the rules of the organization, which in many cases protect the employer as well as the employe.

CHARLES H. HARRISON.

Local Union No. 250.

UNIONISM VS. ONIONISM.

Taken from Webster, the word unit means one; adding the letter "e" we have unite, which means to put together, and after you unite two or more units together you have a union. Now, if these units be men, after they have formed a union and live up to its doctrines, they become individually unionists, which means to advocate, promote, or support a union. When they do that they can tell the truth by saying they believe in unionism.

Now, we will dissect the word onionism, supposing there is such a word. Onionism—onion-like, strong, delectable, something to turn away from. Now, if A should be walking along the street, going to work in his own town, or be going out for a time and meets B, just having arrived in the city with his tools on his back, and A says, "How are you, brother? Where are you going? Are you looking for a job? Or have you had dinner or supper?" I think A believes in unionism. But on the other hand, if A should see B first under the

same circumstances and run up an alley, side street, or start up a pole and turn his back on B, then, in my opinion, A believes in onionism. Or suppose A and B belong to the same local and have known each other for some time. A has done his day's work and has been home and dressed for the evening; B hasn't had time to go home and change his clothes. A meets B in the same clothes he has worn all day. In talking, A learns that B is headed for the same place that A is, so he (A) jumps a car in a hurry, so B won't be seen with him. A believes in onionism.

In other cases, unions, units, onions, or something else will write to our journal, or our medium of good will, etc., and say, "Brothers, stay away from So-and-So, as we haven't enough for ourselves." Is that unionism or onionism? It's more like individualism or hogism. To *believe* is to show *by life*. Brothers, what do you *believe* in?

JOHN C. EASY.

A WONDERFUL NEW INDUSTRY.

The development of the trolley systems of Ohio is the wonder of the century. It has grown to be a new industry, with its variety of uses. Within five years over 300 miles of trolley lines have been built east, west and north from Cincinnati and in the State there are now 3,500 miles of trolley lines. Within the past year more than 10,000,000 passengers have been carried. There are chair cars with buffet attachments, funeral cars, express cars, and sleeping cars.

Ohio is the Trolley State now, but other States are making progress in the same direction. More than \$2,500,000,000 is invested in trolley lines in this country and last year over 5,000,000,000 persons were carried on them. The cash disbursements in salaries alone amounted to over ninety million dollars (\$90,876,173), and security holders were paid for interest and dividends nearly seventy-five million dollars (\$74,816,032).

This earning power and distributing medium is in close touch with the welfare of a very large percentage, directly or indirectly, of the population, as there is possibly none of our great industries more closely allied with the people and certainly none of the public utilities more generally used. Be-

sides, more than 150,000 people are daily employed in the operation of this industry.

The electric railways are being extended on lines of continual scientific advancement and their equipment is being constantly improved.

AN OIL ELECTRICAL SEPARATOR.

A great variety of methods has been tried to remove effectively oil from the air pump discharge of a condensing plant. The great difficulty is caused by the fact that the oil forms an emulsion with the water, and an ordinary filter will not be sufficient to separate the two; hence, chemical reagents are frequently employed. A new process, known as the Davis-Perret electrical system of separation, has been tried at the Leicester (England) Corporation's power-house with reported success. The apparatus is described and illustrated in the *Electrician*, London, May 27.

The separator consists of two large wooden tanks, each divided into five compartments. In each compartment are ten plain sheet-iron plates about one-quarter of an inch thick. All of the compartments are connected in series across a 500-volt circuit. There are thus five plates in parallel. Grooves are cut in the partitions, dividing the compartments, and in the bottom of the tanks, the plates being inserted in these grooves so that the water must pass through the compartments, going under one plate and over the next. The Leicester plant is capable of handling 6,000 gallons of water per hour. It requires twelve amperes of 500 volts. It is said that the sheet-iron plates last from two to three years. After working for a certain length of time, they become coated with a deposit which is easily removable by causing the current to pass through the tanks in the opposite direction. The deposit rises to the surface and may be skimmed off. No other attention is necessary. The action of the current is to cause the emulsified oil to coalesce. When the liquid is passed subsequently through a mechanical filter, there is no difficulty whatever in catching the particles of oil and allowing the purified water to pass to the hot-well. The separator may be used with any type of filter.

KILLS THE BOLL WEEVIL.

The Department of Agriculture recently announced that an ant has been found in Guatemala that is an effective enemy of the boll weevil. It will be immediately introduced into the cotton States. The greatest significance is attached to the discovery, which was made by O. F. Cook, the botanist in charge of tropical agricultural investigations of the Bureau of Plant Industry. Cabled instructions have been sent to him to report immediately to the department what assistance he needs in the way of men and money.

During a trip in Central America last year Mr. Cook discovered a cotton, grown by Indians, which gave evidence of being immune from the attacks of the boll weevil, and on orders for the department he later began an investigation in certain points in Guatemala and Mexico. Mr. Cook's investigations have been in more or less accessible regions in the province of Alta Vera Paz, Guatemala. The weevils are present there, but the investigations show that they are unquestionably kept in check by the presence of an active enemy in the shape of a large, reddish-brown ant, which is attracted to the cotton by the food which it secures from sets of floral nectaries. Mr. Cook's investigations show that these ants spread themselves over fields of cotton, four or five to a plant, and that they are constantly engaged in the destruction of the boll weevil.

Mr. Cook reports that the adroit and businesslike way in which the weevil is disposed of seems to prove beyond question that the ant is, by structure and by instinct, especially equipped for the work of destruction, and is, in short, the true explanation of the fact that cotton is successfully cultivated by the Indians of Alta Vera Paz, in spite of the presence of the boll weevil.

WESTERN LIFE.

Gen. Bird W. Spencer, the president of the American Rifle Association, was describing to an English sportsman the West of the past.

"Our old-time Western miner," he said, "had an ingenuous and simple mind. There was a miner in Montana who rode in to Anaconda one day to see an entertainment

that had been announced. This entertainment was a play, but the miner had never seen a play—a panorama was the only sort of entertainment with which he had ever been regaled.

"Long before the hour to begin, he bought his seat and entered the hall. He sat there in solitude for about twenty minutes. He gazed at the curtain intently. It was a very poor curtain—nothing but a gray, pyramidal mountain, painted on a dark blue background. When the miner had looked his fill at it, he rose and departed for his distant home.

"A pretty rotten panoramer," he was heard to mutter, as he mounted his horse.

"Another miner," Gen. Spencer resumed, "came into town with the toothache. He saw a dentist's sign that said, 'Teeth extracted without pain,' and accordingly he entered this dentist's office.

"The operator pushed him back in the chair, took a firm hold on the aching tooth with his forceps, and said to his assistant, a tall, stout lad:

"Now, Jack, stun him with the club."

MISS MODESTY'S ERROR.

For years there had been a feeling of goodfellowship between them, and the fact that they were distantly related led him to consider himself privileged where she was concerned. Still, on opening his box Christmas morning, she was somewhat surprised to see two shining silver buckles smiling at her. There was no mistaking what manner of gift it was, for the buckles were interlaced with handsome black satin ribbon, and the pair lay side by side.

That was not the sort of gift she liked from a man, and, besides, she did not wear that kind, so she laid them aside, thinking, "I'll give them to some one else some time," and she wrote her note of thanks, saying that modesty prevented her from calling them by their proper name, but they were very handsome and she most grateful. The return mail brought this brief note from him:

"Your modesty was quite unnecessary. Had you taken the trouble to take my gift from the box you would have found a muff-holder."—*Lippincott's*.

THE MOTHER OF PRESIDENTS.

When President Roosevelt went down to Charlottesville last June to attend the commencement exercises he was much amused at a remark made by Judge R. T. W. Duke, the master of ceremonies, and toastmaster at the banquet. Judge Duke is a brilliant lawyer and raconteur, and is a member of the family which has long been distinguished in the annals of Virginia and Kentucky. Secretary Loeb had previously written the judge very fully regarding the arrangements to be made for the entertainment of the President, giving directions as to the length of the stirrup leathers he would use for the ride to Monticello, the home of Jefferson; who would be expected to ride with the President, and how far in the rear the rest of the party must ride. Judge Duke took every opportunity to tease Mr. Loeb about the minuteness of the instructions he had given, and, just before the ride to Monticello was begun, discussing the orders about the length of the stirrup straps, said, "You forget, Loeb, that we are used to Presidents down here. George Washington used to live over on the Potomac, Mr. Jefferson's home was yonder on the hill, James Monroe lived in that house down the street, and James Madison lived at Montpelier in Orange County, almost in sight."

Mr. Roosevelt was in the act of mounting as Judge Duke thus delivered himself, and after he got on his horse he continued to laugh at the blunt Virginian, who had just shown himself the most polished of orators and gentlemen as he presided in the banquet hall.

There recently died in Charlottesville, at the great age of ninety-three years and four months, a Mr. Maury, who had distinct recollections of Mr. Jefferson, who died in 1826, when Mr. Maury was a boy fifteen years of age.

Mr. Maury used often to relate a story he had frequently heard his father tell, which illustrates the simplicity of manners in the early part of the last century.

While James Monroe was President of the United States he went down to Charlottesville, and there he met James Madison, who had ridden into town from Montpelier, twenty miles away, and was the

guest of Mr. Jefferson. The two ex-Presidents and President Monroe went up to inspect the buildings Mr. Jefferson was then having erected for the University of Virginia. The three gentlemen were walking arm-in-arm along the street on their way back from what was to be the university, when they chanced to meet Mr. Reuben Maury, the father of the old gentleman who died last month. Mr. Maury was at that time the president of the Opossum Club, a social organization composed of the gentlemen of Charlottesville and the surrounding country, and which included Mr. Jefferson in its membership. Mr. Maury was acquainted with all three of the distinguished gentlemen, and after they had talked together for a moment Mr. Jefferson remarked:

"Well, Maury, here are two ex-Presidents of the United States and the President; I think if we had about one more president we might all take a toddy."

"Do you forget, Mr. Jefferson," said Mr. Maury, "that I am president of the Opossum Club?"

"Why, to be sure," responded Mr. Jefferson, joining the laugh with the others. "We have a quorum."

And the two Presidents and the two ex-Presidents went down the street to the neighboring tavern.—*Saturday Evening Post.*

A DARKEY DIALECTICIAN.

The Honorable John Allen, of Mississippi, who during his long service in the House of Representatives frequently enlivened the tedium of debate by his funny stories, tells the following:

"In my town of Tupelo, there's a little darky named Zeke that every one knows. Zeke says many bright things. Not long ago his father had occasion to scold him with reference to some mischief which he suspected the piccaninny had set on foot. The cross-examination was rather unsatisfactory. So the father remarked: 'Zeke, I think you'se concealin' sumpthin' from me. 'Member what de Bible says, chile!'

"Whereupon Zeke answered in this wise: 'Yesser, I knows what de Bible says all right. It says yo' mustn't lie; but de Bible it doan' say yo' got to tell de truf all de time, does it?'"

NOTICE.

All local unions of the I. B. E. W. are hereby notified that William Vreeland is in bad standing in Local No. 287. An assessment was placed on him and same has not been paid, so we take this method of notifying the Brotherhood, so he cannot join another local as a new member.

GEORGE SHAFFER,
Financial Secretary No. 287.

CINCINNATI CHANCES.

Business is pretty dull in and about Cincinnati just at present. Although there is a good deal on paper, it has not matured yet. There is a good prospect for a new telephone exchange here. Local No. 235 is increasing in membership. Although we are not overburdened with business, floaters can receive a pleasant look by stopping on their way. *Green cards are always accepted.*

JOHN C. EASY.

RESULT OF DRAWING.

I am instructed to inform you that the drawing held by this local, Monumental, No. 108, Shirt, Waist and Laundry Workers, on May 31, resulted as follows, and kindly ask you to publish the same in your journal: The first prize (six fine union-made shirts), was won by the Boot and Shoe Trimmers' Local No. 339, of San Francisco. The second prize (twelve union-made collars), by Richard Newman, 1719 Carlyle Place, this city. Thanking you and your organization for this kindness and wishing you great success, I am

Very truly yours,

FRANK R. WIGGINGTON,
Recording Secretary.
1535 Myrtle avenue, Baltimore, Md.

GOOD SECURITY.

"Buffalo Bill" was once exhibiting in Boston, and while giving a little reception at his tent at the close of the afternoon performance he was approached by a young man and his mother. After a moment of embarrassment on the lady's part she said:

"Do you consider that you give a true picture of Western life?"

"We try to, madam," answered Mr. Cody.

"The people really ride about and shoot in that terrific manner, do they?" she continued.

"Well, yes; on occasion," the showman replied, rather more guardedly.

"I never suspected it," went on the lady in some agitation. "Most of the money left me by my husband is invested in the West, but I now feel doubtful about allowing any more of it to go there."

"Is it secured by first-class real estate mortgage?"

"I believe so."

"Madam," said Cody with confidence, "do not give yourself the least uneasiness. In all my experience with the West I have never yet seen a first mortgage on real estate riding a bucking bronco, shooting up the town, or doing anything except grimly drawing its 12 per cent per annum. I wish I owned a million of 'em."

AN EASY DIAGNOSIS.

Senator Spooner tells of a case tried in a Wisconsin court in which, during the course of the cross-examination of an exceptionally youthful-looking physician, the opposing counsel was led to utter some rather sarcastic remarks as to the probability that so young a doctor should thoroughly understand his business.

"Are you," asked counsel, "acquainted with the symptoms of concussion of the brain?"

"I am," responded the youthful-looking physician.

"Then," went on the counsel, "let us take a concrete case. If my learned friend, counsel for the defense and myself were to bang our heads together, should we get concussion of the brain?"

"Well," said the witty young doctor, "the probabilities are that counsel for the defense would!"

WHERE THE CAPTAIN WENT.

"Where is the Captain, Miss Bruce?" asked a gentleman passenger of a young lady.

"He went to see——"

"Of course, he did; a Captain always goes to sea," he interjected.

"Well, I mean he skipped ashore——"

"Oh, no, a sipper generally skips to sea."

"I mean the Captain ran ashore to see——"

He laughed and she sailed away.

Grand Secretary's Report for June.						No.	P. C.	Int.	Sup.	But.	Totals.
No.	P. C.	Int.	Sup.	But.	Totals.	87	15 10	20 00	25		85 35
1	183 90		2 00		185 90	88	6 60	4 00	75		11 35
2	144 90	16 00			160 90	89	4 20	2 00	25		6 45
4	15 90	6 60			21 90	90	33 90		1 50		35 40
5	193 80	6 00	50		199 80	91	13 50	2 00			15 50
6	136 80	8 00			144 80	92	12 30		2 50		14 80
8	10 50				10 50	93	5 40		95		6 35
9	127 70	16 00			143 70	94	9 00		1 50		10 50
14	56 40	2 00			58 40	95	11 70				11 70
16	11 70	4 00			15 70	96	23 40	18 00	1 00		42 40
17	58 50				58 50	97	8 60	2 00			5 60
20			50		50	98	25 50			75	26 25
21	93 60				93 60	99	11 70				11 70
22	11 10				11 10	100	14 70	6 00	50		21 20
23	40 80	8 00			48 80	102	12 00		1 00		13 00
25	15 60	2 00	1 00		18 60	103	6 00		5 00		11 00
26	81 30	4 00			85 30	104	48 00	6 00	25		54 25
27	39 60	4 00			43 60	106	13 80				18 80
28	83 00		50		83 50	108	12 30	2 00	50	9 00	23 80
29	24 00	4 00	1 25		29 25	109	5 40	4 00	50		9 90
30	19 50	4 00			23 50	115	3 30				3 30
31	16 50				16 50	116	21 90	2 00			23 90
32	23 80	2 00	1 00		26 80	117	22 10				22 10
36	45 00	40 00			85 00	118	22 20	8 00	25		30 45
37	16 80		50		17 30	121	85 10	12 00	8 50		50 60
38	115 50	6 00			121 50	122	10 20		1 00		11 20
39	50 40	6 00	2 25		58 65	123	3 60	4 00	1 50		9 10
40	8 40	20 00	25		28 65	125	23 30	2 00	50		25 80
41	30 60	12 00	1 25		43 85	126		10 00			10 00
42	8 40				8 40	130	21 60		4 55	50	26 65
45	48 10	10 00	2 55		60 65	133	14 40	4 00			18 40
46	4 80				4 80	134	503 70	38 00			541 70
47	14 70	8 00	2 00	3 00	27 70	135	3 90	2 00			5 90
48	9 90		50		10 40	136	15 60	2 00	75		18 85
49	27 90				27 00	137			50		50
50	35 80	4 00			39 80	138	9 90		5 50		15 40
51	4 80	2 00			6 80	139	30 90	8 00	1 00		39 90
52	33 00	4 00	1 00		38 00	140	23 00	2 00			25 00
53	11 70	2 00			13 70	142	11 10	2 00			13 10
54	16 50	2 00			18 50	143	15 60	4 00	50		20 10
55	27 60	4 00	50		32 10	144	30 30	10 00			40 30
56	16 20	2 00	15		18 35	145	6 90				6 90
57	52 50	2 00			54 50	146	13 30		1 00		14 30
58	16 20	4 00			20 20	147	14 70				14 70
59	45 00				45 00	149	10 50				10 50
61	61 50	10 00	2 00		73 50	150	10 50	2 00			12 50
62	15 30				15 30	152	5 40		25		5 65
63	11 10	14 00	1 75		26 85	153	13 20				13 20
64	6 30	2 00	50		8 80	154	6 00		1 00		7 00
65	52 20	2 00			54 20	155	15 30	2 00			17 30
66	18 60	4 00			22 60	156	32 70	6 00			38 70
67	6 90				6 90	157	4 80				4 80
71	6 90				6 90	158	1 20	6 00			7 20
72	6 60				6 60	159	7 80	4 00	75		12 55
73	30 00				30 00	161	16 10				16 10
74	4 80		40		5 20	162	16 50		50		17 00
75	17 40	8 00			25 40	163	27 90	6 00			33 90
76	33 00				33 00	164	31 20	6 00			37 20
77	41 60	2 00	18 90		62 50	165	28 80		1 75		30 05
78	3 90	1 00	18 25		13 15	166	23 50	12 00	2 00		42 50
79	30 40	14 00	1 00		45 40	167	4 80				4 80
80	32 80				32 80	171	18 90		3 00		21 90
81	26 10	4 00	1 50		31 60	172	16 20	2 00	1 75		19 95
82	3 60				3 60	173	6 90				6 90
83	11 40	4 00			15 40	174	9 00				9 00
86	11 90				11 90	176	18 90	10 00			28 90
						177	3 90		50		4 40

THE ELECTRICAL WORKER

No.	P. C.	Int.	Sup.	But.	Totals.	No.	P. C.	Int.	Sup.	But.	Totals.
179	6 30				6 30	272	11 90				11 90
180	10 50	2 00			12 50	273	5 60				5 60
183	11 10		4 75		15 85	274	8 80				8 80
184	5 10		1 00		6 10	277	90		1 00		1 90
185	33 90	4 00			37 90	278	5 10				5 10
187	12 30	4 00			16 30	279			4 50		4 50
188			25		25	280	13 50	6 00			19 50
190	9 30				9 30	281	16 80		25		17 05
191	10 80				10 80	283	23 40	4 00	8 25		30 65
192	8 40				8 40	286	4 50				4 50
193	10 20	4 00	50		14 70	288	10 50				10 50
194	14 40	4 00			18 40	290	7 80	8 00			15 80
196	70				70	291	23 70	2 00	2 00	1 00	28 70
197	15 20	8 00			23 20	296	6 30				6 30
199	21 30	2 00			23 30	297	11 70		25		11 95
200	15 00	2 00			17 00	298	9 00			7 60	16 50
202	1 80				1 80	299	15 90				15 90
204	14 70				14 70	300	16 50				16 50
205	9 30	4 00	75		14 05	301	6 00				6 00
206	18 00	4 00	1 00	1 50	24 50	302	7 80		75		8 55
207	14 10				14 10	305	3 00				3 00
208	9 60	4 00	1 00		14 60	306	29 80				29 80
210	20 40				20 40	307	5 70				5 70
211	12 30	2 00	50		14 30	308	11 00		10 80		21 80
212	40 10	2 00			42 10	310	5 40		25		5 65
213	25 60	2 00			27 60	311	8 10				8 10
214	8 70				8 70	312		7 00			7 00
215	6 30	2 60			8 90	313	28 20				28 20
216	4 20				4 20	314	1 20				1 20
217	26 70	10 00			36 70	315		12 00	11 25		23 25
218	9 60				9 60	316	16 20	2 00		6 00	24 20
219	7 70				7 70	317	5 40		1 00		6 40
220	9 90	2 00			11 90	318	8 20				8 20
221	12 00				12 00	321	10 50	2 00	50		13 00
225	8 40				8 40	322	5 10	5 00			10 10
226	3 80				3 80	323	2 70				2 70
229	4 50	2 00			6 50	324	6 30				6 30
230	11 70	2 00			13 70	325	13 50		1 00	75	15 25
231	7 50				7 50	326			18 00		18 00
232	19 50				19 50	327	2 70	2 00			4 70
233			1 75		1 75	328	35 40	2 00			37 40
234	13 50				13 50	330	3 00	2 00			5 00
235	32 40	10 00	50		42 90	331	6 30		15 00		21 30
236	3 30		14 40		17 70	334	6 00				6 00
237	16 80	6 00			22 80	335	6 60	2 00			8 60
238	8 40	2 00			10 40	336	6 00		1 25		7 25
240			75		75	337		7 00			7 00
241	3 00				3 00	338	2 70				2 70
243	7 80				7 80	339	3 00				3 00
244	19 20				19 20	340	2 70				2 70
245			50		50	341	7 80				7 80
246	11 10		2 25		13 35	342	8 10				8 10
247	78 00	4 00			82 00	343	10 80				10 80
249	6 00				6 00	345	15 00	2 00			17 00
251	2 40				2 40	347	7 20				7 20
252	10 20				10 20	349	1 80	6 00		1 50	9 30
253	10 80		75		11 55	352	9 90				9 90
257		4 00			4 00	353	13 50				13 50
258	19 00	2 00			21 00	356	109 70	6 00	1 00		116 70
259	9 30	2 00			11 30	357	7 20				7 20
260	5 70				5 70	358	16 20				16 20
261	7 80	2 00			9 80	361	5 40				5 40
264	8 70				8 70	362	1 30	6 00			7 30
266	11 10	2 00			13 10	365	3 00				3 00
268	2 40				2 40	367	8 10	20 00			28 10
269	9 60	4 00	65		14 25	368	9 40	6 00			15 40
270	43 80	24 00			67 80	369	6 70	2 00			8 70

No.	P. C.	Int.	Sup.	But.	Totals.
871	6 60	2 00			8 60
872	12 80	4 00			16 80
873	4 90				4 90
874	2 40				2 40
875	4 20	4 00			8 20
878	2 70	1 00			3 70
879	18 20	6 00	1 00		20 20
884	8 80				8 80
885	6 60	2 00			8 60
888	4 20				4 20
890	7 80				7 80
892	47 10	12 00			59 10
893	9 90		2 25		12 15
895	4 50				4 50
896	9 30	2 00			11 30
897	8 80		50		8 80
400	4 80	2 00			6 80
403	6 90				6 90
405	2 70		7 95	75	11 40
406	5 10				5 10
407	16 80	2 00			18 80
409	8 60	2 00	1 00		6 60
410		5 00	1 00	3 00	9 00
411	3 60	2 00			5 60
413	6 60				6 60
417			50		50
418	2 10	2 00	95		5 05
421	5 00	6 00	1 25		12 25
422	5 40		50		5 90
423	9 30				9 30
425	2 10	2 00			4 10
426	4 20				4 20
427	8 60				8 60
428	2 40	2 00			4 40
429	11 70	2 00			13 70
430	4 20	2 00	25	1 50	7 95
431	1 80		1 25		3 05
432	9 30	2 00		1 00	12 30
436	4 60				4 60
436	5 30				5 30
437	17 10	3 00			20 10
439	8 30				8 30
440	8 40	2 00			10 40
441	1 50		25		1 75
443	2 40				2 40
444	2 10				2 10
445			1 00		1 00
447	6 00				6 00
448	11 70				11 70
449	8 10				8 10
452	8 90				8 90
453	2 40				2 40
454	2 70				2 70
455	4 80	2 00			6 80
459	6 00				6 00
460	7 50				7 50
461		17 00	8 00		25 00
462	8 60				8 60
464		15 00	11 00		26 00
465	30	8 00	9 00		17 30
466		8 00			8 00
467		11 00	13 40		24 40

\$5,766 00	\$880 00	\$269 90	\$37 75	\$6,953 65
Wiring Diagram.....				1 50
Subscriptions to E. W.....				3 00
Advertisements in E. W.....				21 19
Watch charms.....				5 00
Buttons not sold through local unions..				24 50

Total..... \$7,008 84

Fraternally submitted,
H. W. SHERMAN,
Grand Secretary

Grand Treasurer's Report for June.

EXPENSES.

F. J. Sweek, May expenses.....	70 27
D. Smith, May expenses.....	91 75
M. J. Sullivan, May expenses.....	53 00
E. P. Allman, May expenses.....	85 83
F. J. McNulty, May expenses.....	122 70
F. L. Witters, May expenses.....	77 40
Death claim, No. 415, Urban Lynch, Local Union 77.....	100 00
Death claim, No. 416, E. Nelson, Local Union 176.....	100 00
Death claim, No. 417, W. J. Cummings, Local Union 81.....	100 00
Death claim, No. 418, L. C. Kohler, Lo- cal Union 283.....	100 00
Death claim, No. 419, W. A. Chaney, Local Union 161.....	100 00
Death claim, No. 420, Charles Fawcett, Local Union 282.....	100 00
Death claim, No. 421, C. L. Steffens, Lo- cal Union 8.....	100 00
Death claim, No. 422, H. E. Sutton, Lo- cal Union 3.....	100 00
Death claim, No. 423, Wm. Beckman, Local Union 161.....	100 00
John Morrison, commissions on adver- tisements.....	237 50
H. E. Wilkens Printing Company, print- ing Electrical Worker.....	1,008 50
Mailing Worker.....	62 50
F. J. McNulty, salary, June.....	166 00
H. W. Sherman, salary, June.....	166 00
F. J. Sweek, salary, June.....	125 00
E. T. Mallory, salary, June.....	125 00
E. P. Allman, salary, June.....	125 00
D. Smith, salary, June.....	125 00
F. L. Witters, salary June.....	125 00
J. P. Connor, salary, June.....	125 00
M. J. Sullivan, salary, June.....	125 00
F. J. Sheehan, salary, 3 months.....	50 00
M. K. Clinton, salary, 4 weeks.....	72 00
F. F. Brown, salary, 4 weeks.....	52 00
B. B. Goebel, salary, 4 weeks.....	44 00
B. H. Goldsmith, salary, 4 weeks.....	44 00
A. E. Malone, salary, 4 weeks.....	40 00
Wm. T. Harris, rent.....	80 00
Janitor.....	3 00
A. W. McIntyre, organizer, 464 Cleve- land, Ohio.....	15 00
C. F. Sudwarth Printing Co., G. O. sup- plies.....	22 00
J. Baumgarten & Sons, seals.....	15 85
Postage.....	96 75
Office supplies.....	4 55
Telegrams.....	9 61
Telephone service.....	4 60
Express.....	14 99

4,434 20

RECAPITULATION.

Amount on hand June 1, 1904.....	25,707 66
Receipts for June.....	7,008 84

32,716 50

Expenses for June.....	4,434 20
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Amount on hand July 1, 1904.....	\$28,282 30
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Fraternally submitted,
F. J. SHEEHAN,
Grand Treasurer.

BROTHER BROWN'S SUGGESTION.

The June issue of the *WORKER* contained a letter from Brother Brennan, of Rochester, N. Y., which, considering his figures, contained more truth than poetry.

Allowing that Brother Brennan's figures are correct, in about another year this organization, known as the I. B. E. W., will be a financial wreck, which you all must admit would be a very disastrous occurrence for about 30,000 members.

Now, can we not devise some means to avert such a calamity? It seems to me that out of nearly 30,000 men some one of them could suggest something to relieve this impending disruption of our Brotherhood. Now, I have a suggestion to make which I would like to see agitated through our monthly journal, so that all the brothers can have a chance to study it up, and perhaps be able to make some more practicable suggestion.

The Cigar Makers' International Union has a membership of 40,000 men. Instead of holding a convention every year or two they transact all their convention business by referendum vote, thereby curtailing that delegate expense item about 99 per cent. Now, brothers, in my opinion this is worth looking into. If they can do this, why can not we? If each and every local will bring this matter up before it is too late and discuss it thoroughly, I think this convention fad will die a natural death before 1905, and there is no reason why, at the rate our treasury is increasing, we cannot in a few years become one of the strongest organizations in the world.

C. W. BROWN.

Local 45, Buffalo, N. Y., June 27, 1904.

NOTHING DOING.

Don't stop off here if you are looking for work, for there are more "hikers" around here out of jobs than there are at work, and we who have jobs don't know how soon we will be hit in the slats with a time check, and sent down the pike. It has been a long time since this town was as dull as it is now for line work. There is nobody doing anything.

C. S. EBERSOLE.

Harrisburg, Pa., June 27, 1904.

WEBSTER'S WARNING.

All wiremen are requested to stay away from Webster, Mass. The Kilton Electric Company is unfair to organized labor. They want the men to work ten hours a day for \$2.25 and straight time for Sundays and holidays; also to pay their own expenses out of town.

H. S. TAYLOR.

Local 103, Boston, Mass.

ADDRESS TO COLORADO.

Dedicated to James H. Peabody, Governor of Colorado, and Chief of Anarchists.

Colorado! Land of beauty! where majestic mountains rise

From deep gorges, till their lofty sun-kissed summits pierce the skies;

Land where nature's God hath scattered, far and wide, with lavish hand,

Measureless, unbounded blessings, beautiful! goodly! favored land!

But above thee, fair altruria, hangs a shadow dark as death!

And across thy granite bosom creeps the deadly poison breath

Of a hideous, loathsome serpent! and his foul and slimy trail

Marks the tomb of human freedom, in thy glorious Eden vale!

Lift thy face, oh! Colorado—open now thy sluggish eyes,

Prostrate see thy sons before thee, hear, oh! hear their anguished cries!

Now they call to thee for succor, e'er their last faint hope be slain,

Wilt thou hear them, Colorado? Will they call to thee in vain?

Where once dwelt thy happy children, now is heard the tread of armies,

And the cruel hand of might, strong to do the oppressor's bidding,

Hauls the flag of freedom down, and the hateful form of treason

Wears the honored Judge's gown.

Where erstwhile the sword of justice guarded well each human right,

Now, the privileged oppressor wields the lash of purchased might;

And where reigned the holy, quiet, deep
majestic, calm of peace;
Now, while hired assassins riot, weeping
justice hides her face.

Listen, Colorado! Listen! Hearest thou
not the sullen boom
Of the guns, whose murderous missiles hurl
thy children to their doom?
Bread they asked, and stones for answer to
their plea the masters gave,
Plead for life, and death, full armored, swift
pursued them to the grave!

Pause and think, oh! Colorado, thou art
passing in review
At the bar of human judgment, and its ver-
dict will be true!
Will the words of condemnation on thy
startled senses fall?
Will the hand of retribution write thy doom
upon the wall?

In the mighty world arena, where the clash
of arms is naught,
Where the power of arms and armies falls
before the power of thought,
Will be waged the final conflict, and the vic-
tory shall be
On the side of right and justice, and the
toilers shall be free!

Once again the voice of justice shall be
heard in thunder tones!
Ancient tyranny shall crumble; and amid
the crash of thrones,
There shall rise a new creation; crime and
poverty shall cease,
And above the wreck of ages shall appear
the star of peace.

Thus, between the truth and falsehood is
the righteous balance cast;
Thus, to every proud oppressor comes the
hour of doom at last;
Thus, each wave that sweeps the ocean,
breaks at last upon the shore;
Thus, doth right, Eternal triumph, and shall
triumph evermore!

—Rev. W. T. Withrow, Kansas City, Kan.

SLAVES.

They are slaves who fear to speak
For the fallen and the weak;
They are slaves who will not choose
Hatred, scoffing, and abuse,
Rather than in silence shrink
From the truths they needs must think;
They are slaves who dare not be
In the right with two or three.

—J. Russell Lowell.

WE ARE APT TO FORGET.

That politeness costs nothing.
That we were all children once.
That we should live and let live.
That we will be dead a long time.
That our lives are what we make them.
That capital cannot exist without labor.
That we should live within our means.
That there is no royal road to knowledge.
That the devil works while preachers
sleep.
That a kind word, even to a dog, is never
lost.
That others have feelings as well as our-
selves.
That life was made for enjoyment—not
suffering.
That God helps those who hustle for
themselves.
That a loafer is the most despicable crea-
ture on earth.
That every skilled workman was once
an apprentice.
That we are judged by our acts and the
company we keep.
That we owe a duty to our fellow-man
as well as ourself.
That labor has just as much right to or-
ganize as capital has.
That man's inhumanity to man makes
countless thousands mourn.
That minding one's own business is the
most profitable employment.
That child labor is a blot on humanity
and a disgrace to civilization.
That while the world owes us a living we
have got to get out and collect it.
That it is our sacred duty to buy only
such goods that bear the union label.
That when we expect good from our
union we should do something for our union
in return.

YOU CAN'T MAKE A HARD TOOTH OF PURE GOLD.

That which is absolutely pure lacks strength. And that which is strong to resist friction lacks absolute purity.

In dentistry this is made clear by experience and practice.

In history it is made clear too often by the flames that burned men.

A wise dentist and doctor was talking—his name is Gottschaldt:

"Nature limits her gifts to matter as to men."

The best and most valuable of metals is gold. But we can use it pure only when surroundings protect it.

If a dentist builds a tooth, he cannot make it of gold pure. For pure gold will not stand the friction, the biting, the struggle that go on among teeth. A tooth all of pure gold, impervious to acid, always bright, would be an interesting institution. But that cannot be made.

Fortunately we can use pure gold in fillings. When enamel hard as flint and the bony structure of the tooth form a protecting coat, we can use the pure gold as a filler, and defy in that filling all of nature's action.

We can mix the gold with baser, inferior metal and build a tooth that will crack nuts and last a long time—but it will grow black and show the base mixture in it.

There ought to be a moral in this fact that life's friction is too much for the noblest and purest of metals.

There is an excellent lesson in this doctor's talk. For man, in contact with the world and its struggle, is exactly like the gold that the dentists use in their work.

Many a good man has gone to the wall—because he was pure gold, and could not stand the friction. He might have lasted and been admired—a very gold tooth among men—had there been more alloy in his nature.

Here and there some man of pure gold is protected by conditions, and like the pure gold filling in the tooth he lasts in spite of his good qualities.

But far too often the man of pure character, free from base alloy, incapable of compromise with his conscience, is de-

stroyed—or cast aside at the very beginning, as unfit for hard work.

Of men we can truly say what the doctor says of gold. The man to last in spite of friction must have the alloy of moral hardness. Then he can stand the friction—but he turns black.

Warren Hastings, amazed at his own honesty, was a strong gold tooth with much base alloy. If pure gold he could never have done his work. The British owe modern India, Burke owes a fine speech, to this human tooth of gold alloy.

If you examine closely the private life of a Washington or even a Lincoln, you find the alloy. Under the test of history's acid these great names turn black. But it was the alloy that enabled them to do the hard work in spite of friction and fighting.

Less wise and far seeing than the scientific dentist, civilization is forever putting human pure gold in places of struggle, where it cannot survive. History is full of hangings, quarterings, bonfires, beheadings that tell of the man or woman of pure gold used in the wrong place.

Poor Joan of Arc, burned alive when her work was done—she represents an attempt to make an incisor of pure gold. She lasted as long as she could—but she could not last. Pere Marquette was another of the pure gold beings worn away because they were too good for the world's conditions. Giordano Bruno was another. The man who really invented the sewing machine is never heard of. He consented to give up his idea and forego all profit when his wife pointed out to him that his discovery meant starvation for thousands of poor sewing women—he was of pure gold—but too soft for this world.

Some man, perhaps, will find a way of hardening gold so that its absolute purity and atomic integrity will be able to fight against the baser and harder metals.

That is guesswork.

But this is sure and no guesswork:

Humanity in time will devise such protection for its members, such recognition of high merit as will make it possible even for a man of pure and golden character to survive and succeed against the material conditions of life. When that day comes we shall have our real leaders and our true

teachers. We shall no longer look always to some tragic failure for our inspiration. To-day it is the martyr's death, the room where Socrates drank his poison, the streets where Savonarola was hooted by the men he died for that remind us of our few men made of pure gold.

Some day, like the pure gold filling in the solid back tooth with its walls of enamel, the golden men will find conditions that protect them. Speed the day.

And meanwhile—have a kindly feeling and a kind word for the man who has failed at your side. Perhaps he has been worn away because his character is truer, purer than yours.

Many a failure with sad eyes and hopeless look would have been among the world's successes had his metal been less pure.

Did you ever think of the number of successes due to bad qualities, the great fortunes built on base metal?—*New York Journal*.

STRIKES CAUSED BY BOSSES.

A sensational accusation was made at the annual convention of the National Association of Manufacturers (Parryite) in Pittsburgh. It was no less than a charge against the manufacturers themselves, preferred by none other than one of the most noted strike breakers in the world.

A discussion of "Strike Insurance" was being held at the time, and E. F. Du Brul, of Cincinnati, strike commissioner of the National Metal Trades Association, was speaking.

"I want to say that 80 per cent of the strikes of this country are the fault of the employer," he asserted. "Now, you can take that the way you like it. But every time there is a strike there is some cause for it. It is either caused by the deficiency in the plants or the rottenness of its management."

Ex-Congressman Anthony Hitner, of St. Louis, jumped to his feet after Mr. Du Brul had finished and said that he for one did not propose to allow such a statement to go on record without making some defense. The speaker was frequently interrupted by delegates, who hurled questions at him. He concluded by saying that he was confident that 90 per cent of the strikes in this coun-

try have been caused by organized labor, and that he was older and had more experience than Du Brul possessed.

"Have you ever settled a strike?" asked some one.

"No," shouted Hitner.

"Well, Du Brul has. He has had more experience than you," said a delegate.

This remark turned the laugh on Hitner, and he retired from the wordy combat.

Mr. Du Brul continued:

"I know of instances where a laboring man has schemed to increase his piece of work from \$3 to \$4.50 a day and has been cut down to \$3 a day. Through his ingenuity he has again increased his pay only to be cut down again and then you wonder at strikes."

The speaker was interrupted several times in an effort to stop the discourse. The chairman ruled that his remarks were in order. He then said that much trouble was caused by unscrupulous foremen.

Hitner interrupted the speaker to say that he concurred in the last statement, but asked:

"Whom does the foreman represent, the employed or the employer?"

"He should represent the employer, and if he don't it is the employer's own fault," answered Du Brul, followed by cries of "good" by the delegates.

Mr. Du Brul continued, amid cheers: "I hope you will take my statement in the spirit in which it was given, as a warning to the manufacturers that they must educate themselves; that they must educate their foremen, their superintendents and everybody else connected with the handling of labor. And, above all, they have got to educate the laboring man, and if they do not do this it's their own fault very largely."

The speech of Mr. Du Brul had the effect of a bomb explosion in the convention.

Henry A. Faber, who represents the Higgins Manufacturing Company, of Newport, Ky., said he took no stock in strike insurance.

"Treat your men right and you won't have strikes," said Mr. Faber. "I never scold a man, and I do not permit a foreman to do it. If a man does wrong, he is called to one side and told in a manner that makes him love you. We get out of

our men all the work that we want them to do. We do not need strike insurance in our shop."

NOTICE.

Should H. S. Maline apply for membership in any local of our Brotherhood, the proper officer will kindly take up his card and communicate with the financial secretary of Local No. 192.

PASTE IN YOUR HAT.

No young man is rich enough to smoke twenty-five cent cigars.

No man, however rich, has enough money to waste putting on style.

The more successful a man becomes, the more careful he should be to keep his head level.

Every time a man loses his temper, he loses his head; and when he loses his head, he loses several chances.

Next to knowing your own business, it's a mighty good thing to know as much about your neighbor's business as possible, especially if he is in the same line.

The above are a few of the chunks of wisdom that fell from the lips of the late Gustavus Swift, of Chicago, one of the most successful business men of the West. If you do not care to paste these maxims in your hat, pin them to the edge of your looking-glass, and read them every morning while you are dressing. The result may not bring you a million, but in ten years you will possess something that money cannot buy.

SHE SPOKE TOO LATE.

A lady in Bradford hired two men to help her in house cleaning. "Will you do the picture frames?" said she. "Yes," answered one of the men, "and if you could get us some whiskey, why it's the finest thing to clean them with." "Oh," she answered, "if whiskey will clean them I will send down a bottle; I have some and you may try it." The men washed the frames with soap and water, and of course drank the whiskey. When she saw the frames bright and glittering she remarked: "And so whiskey did it; I came very near throwing that whiskey away. I bathed poor Fido in it before he died, you know."—*The Million*, Haverhill, Mass.

IMPORTANT NOTICE.

Our attention has been called to certain reports that have been recently circulated, evidently with malicious intent, with reference to an alleged action of the underwriters in condemning "Circular Loom." We cannot believe that any of our trade will be misled by these libelous statements. But may we not ask that you kindly refer to the list of approved appliances published by the underwriters, April, 1904, in which you will find our material has the full sanction of the bureau? All appliances included in this little pamphlet are recommended for use by the underwriters, and it will be apparent to you that our name would not be upon its pages unless "Circular Loom" met the requirements.

We have recently taken this matter up with the bureau and have been assured that our material has not been condemned and that when installed in conformity with the rules laid down by the national code, it is accepted by the various bureaus throughout the United States and *in verification of this statement you are at liberty to communicate with the Electrical Bureau of the National Board of Fire Underwriters, 67 East Twenty-first street, Chicago.*

Yours very truly,

AMERICAN CIRCULAR LOOM CO.

Chelsea, Mass., July 2, 1904.

DOUBTFUL RELIEF.

On one occasion Daniel Webster was on his way to Washington and was compelled to proceed at night by stage from Baltimore. He had no traveling companion, and the driver had a sort of felon look which produced no inconsiderable alarm to the Senator. "I endeavored to tranquilize myself," said Webster, "and had partly succeeded, when we reached the dark woods between Bladensburg and Washington—a proper scene for murder and outrage—and here, I confess, my courage again deserted me. Just then the driver turned to me, and with a gruff voice inquired my name. I gave it to him. 'Where are you going?' said he. The reply was, 'To Washington. I am a Senator.' Upon this the driver seized me fervently by the hand and exclaimed: 'How glad I am! I took you for a highwayman.'—*Exchange*.

THE ELECTRIC ARC BETWEEN MERCURY AND CARBON.

The electric arc between mercury and carbon has been studied by Herr L. Casuto. The arc was formed within a glass vessel of cylindrical form, with the axis vertical. Mercury was placed at the bottom, and a carbon rod introduced from above. The entire vessel was enclosed in a second one, through which water was circulated for cooling. Measurements of current and voltage were made for different arc lengths and for different directions of current, and the results are given in graphical form. They show that, for equal current strengths and equal separation of electrodes, the electrode potential of the arc is greater when the mercury forms the cathode and the carbon the anode, than for the reverse. Assuming as the first approximation that the equation for the fall of potential has the form B equals C plus $g l$, it is found that the constant C , which is the sum of the anode and cathode potential drops, is approximately the same for either direction of current. On the other hand, the fall of potential g in the arc itself is greater when the mercury forms the cathode than when it forms the anode. This dependence of the potential fall in the arc is explained in the following way: The arc shows for its entire length the characteristic blue light of mercury vapor, independently of the direction of the current. This shows that the mercury is vaporized when it forms the cathode, as well as when it is the anode, more strongly than the solid carbon. But this vaporization is greater from the mercury anode than from the mercury cathode, since the fall of potential of the former is greater than that of the latter. The arc from a mercury anode therefore contains more vapor than one from a mercury cathode. The potential fall along the arc depends upon the mixture of vapors, increasing as these decrease; consequently, it will be less for the more strongly vaporized mercury anode. The same subject has been investigated by Mr. J. E. Ives, and his results are here quoted. Mr. Ives' work was carried out by striking an arc between mercury and a solid metal, the electric circuit containing a large inductance. The resulting spark was then absorbed by connecting

the condensers across the arc. These results are in agreement with the explanation just given.—*Translated and abstracted from Physikalische Zeitschrift (Leipsic), May 15.*

RUTHERFORD ON RADIUM.

A brief article appeared in these columns two weeks ago in reference to an interesting lecture on "Radiation and Emanation of Radium," delivered by Prof. E. Rutherford, of Montreal, before a distinguished body of scientists at a meeting of the Royal Institution in London.

Late mail advices state that the lecturer, after showing the power of radium to excite phosphorescence and to discharge a charged electroscope, described the properties of the three kinds of rays which it had been found to give off. Prof. Rutherford, we gather from the London *Times* report, said that in addition radium gave off an emanation which behaved like a gas and could be condensed by cold; it could also be secluded in the radium itself, and was liberated when the salt was dissolved in water. This emanation, though exceedingly minute in quantity, possessed three-quarters of the characteristic powers of radium and all its properties. Could we collect a cubic inch of the emanation, the tube containing it would probably melt, while a few pounds would supply enough energy to drive a ship across the Atlantic, though each of those pounds would require 70 tons of radium to supply it.

As to the process going on in the emission of the emanation, Prof. Rutherford advanced the theory that radium was continuously producing it, but that when produced, instead of remaining constant, it was continuously being changed into something else. He supposed that some atoms of the radium in some conditions became unstable; then there was an explosion, and particles of matter were shot off at great velocities. There was a series of such explosions, due to atomic, not molecular, changes, and resulting in the formation of a series of transition elements. A mass of radium left to itself, must, therefore, throw itself away. Probably in about 2,000 years its radioactivity would fall to half value, and after 50,000 years it would cease to exist. Therefore, said Prof. Rutherford, it was to be

supposed, since radium was produced from minerals more than 50,000 years old, that it was being itself produced from something else, and was itself a transition element.

In the self-destruction of radium, he said, two things must be produced that were not radio-active—the α rays and the final product. Evidence pointed to the view that the α particle was helium. The lecturer mentioned that radium was distributed very widely over the earth, being present everywhere, but in very minute particles. He believed that the amount of radium present, uniformly distributed, would be sufficient to account for all the heat lost from the earth, and it would explain the temperature gradient as measured to-day.—*Electricity*.

DINNER-PAIL PHILOSOPHY.

Success is the child of daring.

A lie travels by wire; the truth by mail.

Yesterday's neglect is to-day's worry.

The best prophet of the future is the past.

The man who snores should be rapped in slumber.

Circumstances do not make men, they discover them.

People who talk too much don't realize it until the next day.

To know others, study yourself; to know yourself, study others.

A promising young man is in great demand among his creditors.

There is no use working yourself to death in order to make a living.

Every man should keep a fair-sized cemetery in which to bury his faults.

Some men are so stingy that they won't even laugh at their own expense.

We all have strength enough to endure the misfortunes that come to others.

The man who trusts to luck for his happiness will be in luck when he gets it.

It is surprising how much trouble some people can stand before it gets to them.

Men who never had any advantages in youth are the quickest to take them when older.

A man who repeats everything he hears, after a while doesn't hear anything worth repeating.

Whenever you have to stop to think whether a thing is right or wrong, you may be pretty sure it is wrong.

NOT SQUARE.

The Teuton is a long time in learning British idioms. One who had been here for a year or more and could speak some English before his arrival—a very short and corpulent man, by the way—went to his grocer's and paid a bill which had been standing for several weeks.

"Now you are all square, sir."

"I vas vat?"

"You are square, I said."

"I vas square?"

"Yes, you are all square now."

Hans was silent for a moment, then, with reddening face and flashing eyes, he brought his plump fist down upon the counter and said:

"See here, mine frent, I will hav no more peezeess mit you. I treat you like a shentleman. I pay my pill, und you make a shoke of me. You say I vas square ven I know I vas round as a parrel. I don't like such shokes. My peezeess mit you vas done."—*Tit-Bits*.

USE OF RADIUM IN OCEAN TELEGRAPHY.

"A new use has been found for redium," said Robert F. Amend, the representative of a chemical supply house. "If it proves practical it probably will go even higher than it now is. If radium be placed near the receiving end of an ocean cable the message will be received much more clearly and distinctly than without it. This would be a great advantage in ocean telegraphy, but just in what way this influence is supposed to be manifested I do not know.

"The price of radium has gone up 40 per cent in the last two or three months on account of the large demand and the comparatively scarce supply. Our house represents the Curies, of Paris, the original discoverers of the new metal, and their product is by far the best manufactured. They have made little of late, however. Considerable radium of a cheaper grade is being made in Germany.

"For medicinal purposes no proof has yet been given that it has practical value. Much is being bought, however, as a curiosity."—*Milwaukee Sentinel*.



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DIRECTORY OF UNIONS

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Locals are composed of branches of the trade, as per the following signs:

*Mixed. †Linemen. ‡Inside Men.
‡Trimmers. †Cranemen. †Cable Splicers.
°Switch-board Men. †Shopmen.

†No. 1, St. Louis, Mo.—Meets every Tuesday night at 8 o'clock at Lightstone's Hall, 1028 Franklin avenue. President, William Gilsdorf, 8921 West Twentieth street; recording secretary, H. J. Morrison, 5944 Theodosia avenue; financial secretary, W. S. Peebles, 3119 Franklin avenue.

†No. 2, St. Louis, Mo.—Meets every Saturday at S. E. Cor. 17th and Wash. Sts. President, J. J. Noonan 3711 La Salle st.; recording secretary, J. A. Horton, 1549 Papin St.; financial secretary, J. Kline, S. E. cor. 17th and Wash. sts.

†No. 3, New York.—Meets Tuesday and Thursday nights at Brevoort Hall, 154 East Fifty-fourth street. President, J. F. Bergen, 106 Concord street, Brooklyn; recording secretary, P. McNally, 2173 Third avenue; financial secretary, W. A. Hogan, 145 East Fifty-third street, New York City.

†No. 4, New Orleans, La.—Meets first and third Wednesday evenings at Room No. 2 Odd Fellows Hall, Camp street, between La Fayette and Poydras. President, John H. McLin, 2323 First street; recording secretary, J. Criss, 2526 Melpomene street; financial secretary, Robert L. Reilly, 2908 Annunciation street.

†No. 5, Pittsburgh, Pa.—Meets every Friday at Electrical Workers' Hall, 302 Grant street. President, James E. Bown, 392 Coltart square; recording secretary, S. R. Scheirer, 302 Grant street; financial secretary, J. W. Considine, 302 Grant st.

†No. 6, San Francisco, Cal.—Meets every Wednesday night in Myrtle Hall, Alcazar building, 120 O'Farrell street. President, Geo. F. Keetley, 313 Eddy street; recording secretary, W. H. McConnell, 27 6th st.; financial secretary, A. M. Shuhman, 821 York street.

*No. 7, Springfield Mass.—Meets every Monday at Room 219, Court Square Theater building. President, W. F. Kavanaugh, 221 Sumner street; recording secretary, George D. Beecher, 81 Tyler street; financial secretary, J. J. Collins, 110 Congress street.

†No. 8, Toledo, Ohio.—Meets Monday of each week at Friendship Hall, cor. Jefferson and Summit. President, J. W. Strub, 1220 Baker street; recording secretary, S. S. Hepburn, 8139 Summit avenue; financial secretary, M. C. Luttenberger, 423 Floyd avenue.

†No. 9, Chicago, Ill.—Meets every Saturday night 8 p. m., at Sam Jack's Hall, No. 7, 83 East Madison street. President, H. Cullen, 80 Aberdeen street; recording secretary, J. L. Collins, 5907 La Salle street; financial secretary, C. M. Paulson, 33 North Lincoln street.

*No. 10, Indianapolis, Ind.—Meets every Monday at Morrison's Hall, Circle street. President, M. K. Foxworthy, 820 Jefferson ave.; recording secretary, J. C. Davis, 433 N. Capitol avenue; financial secretary, S. B. French, 136 W. New York street, room 1.

*No. 11, Waterbury, Conn.—Meets every Friday at Carpenters' Hall, Schlitz bldg., Main street. President, P. J. Horgan, New street; recording secretary, M. J. Quinlan, 31 Welton street; financial secretary, C. H. Little, 347 West Main street.

*No. 12, Pueblo, Colo.—Meets every Friday evening at Trades' Assembly Hall, Sixth and Main streets. President, Taylor Chun, P. O. Box 70; recording secretary, A. E. Hoes, P. O. Box 70; financial secretary, Joseph E. Marrion, P. O. Box 70.

*No. 13, El Paso, Tex.—Meets first four Mondays of each month at Masonic Temple, San Antonio street. President, C. A. Gilbert, Box 620; recording secretary, S. A. Milliron, Box 620; financial secretary, J. Blake, Box 620.

†No. 14, Pittsburg, Pa.—Meets every Thursday night at Electrical Workers Hall, 302 Grant street. President, J. V. Ferry, Crafton, Pa., P. O. Box 337; recording secretary, C. O. Skinner, 302 Grant st.; financial secretary, H. Kirkpatrick, 302 Grant street.

*No. 15, Jersey City, N. J.—Meets first and third Fridays of each month at Filer's Hall, Palisade avenue, near Elevated R. R. President, H. S. Farrell, 109 Fourteenth street, Hoboken, N. J.; recording secretary, J. J. Byrne, 1218 Park ave., care Wilson; financial secretary, A. H. Wilson, 1218 Park avenue, Hoboken, N. J.

*No. 16, Evansville, Ind.—Meets every Friday night at Private Hall or rooms, 313½ Upper Third street. President, E. E. Hoskinson, 925 East Indiana street; recording secretary, S. H. Lockett, 218 Oak street; financial secretary, Dick Fisher 204 Clark street.

†No. 17, Detroit, Mich.—Meets every Monday evening at Johnson's Hall, 34 Monroe avenue. President, E. G. Smith, 32 Farmer street; recording secretary, George Burns, 349 Magnolia ave.; financial secretary, F. H. Ellsworth, 193 Charlotte avenue.

†No. 18, Kansas City, Mo.—Meets every Monday evening, at 1333 Grand avenue. President, E. A. Newell, 610 E. 10th street; recording secretary, Claude Seaman, 2201 Park avenue; financial secretary, Neil Callahan, 1318 Forrest avenue.

*No. 19, Atchison, Kans.—Meets second and fourth Fridays, Labor Union Hall, Seventh and Commercial streets. President, E. Emory, Mo. and Kans. Tel. Co.; recording secretary, O. B. Gilmore, 614 N. Sixth street; financial secretary, R. M. Dougherty, 501 Commercial street.

†No. 20, New York City.—Meets every Tuesday night at Military Hall, 193 Bowery. President, T. J. Convery, 193 Bowery; recording secretary, W. D. Hubbard, 193 Bowery; financial secretary, P. McLaughlin, 149 N. Portland avenue, Brooklyn.

†No. 21, Philadelphia, Pa.—Meets every Friday at Electrical Workers Hall, corner Daries and Vine streets. President, Thomas Powers, 906 Markoe street; recording secretary, H. C. McClenahan, 509 Race street; financial secretary, Theodore Wottercheck, 192 W. Norris street.

†No. 22, Omaha, Nebr.—Meets first and third Wednesdays of each month at Labor Temple, Fifteenth and Dodge streets. President, Chas. Granden, 1502 N. Nineteenth street; recording secretary, H. P. Kerr, 2245 N. Nineteenth street; financial secretary, J. Corr, 4123 No. Twenty-fourth street.

*No. 23, St. Paul, Minn.—Meets first and third Mondays at Federation Hall, Third and Wabasha streets. President, Edward Rowan, 715 Lee avenue; recording secretary, C. W. Berryman, 650 Rice street; financial secretary, J. B. Hilton, P. O. Box 232, North St. Paul, Minn.

†No. 24, Minneapolis, Minn.—Meets second and fourth Tuesdays at Union Temple, 26 So. Washington avenue. President, A. H. Sellars, 127 E. 25th street; recording secretary, C. H. Coar, 2831 Twenty eighth avenue, south; financial secretary, John J. Reynolds, 2316 Fourth avenue, south.

*No. 25, Terre Haute, Ind.—Meets every Tuesday at C. L. U. Hall, 626½ Wabash ave. President, A. R. Markie, 1027 Seventh avenue; recording secretary, C. Shoaf, Citizens Tel. Co.; financial secretary, Lee Dickerson, 509 S. Thirteenth street.

†No. 26, Washington, D.C.—Meets every Thursday, corner Sixth and G streets, N. W. President, C. Yeabower, 404 I street, N. E.; recording secretary, E. A. Nelson, Jr., 1823 F street, N. E.; financial secretary, A. Longpre, 66 R street, n. e.

†No. 27, Baltimore, Md.—Meets every Monday evening at Border State Bank building, Park avenue and Fayette street. President, A. J.

Walker, 657 Fayette street, west; recording secretary, G. W. Spillman, 1219 Carroll street; financial secretary, J. Connelly, 1728 N. Bond street.

†No. 28, Baltimore, Md.—Meets every Thursday at 8 p. m. at Trades' Union Hall, 843 No. Calvert street. President, W. W. Welsh, 1520 E. Preston street; recording secretary, P. R. Bruce, 1026 No. Stricker street; financial secretary, Geo. J. Schmidt, 241 Milton avenue.

*No. 29, Trenton, N. J.—Meets every Tuesday evening at Ribson building, corner Broad and Front streets. President, Chas. Gordon, 32 Chapel street; recording secretary, W. N. J. Wood, 60 W. End ave.; financial secretary, J. M. Cleary, 711 S. Clinton avenue.

†No. 30, Cincinnati, Ohio.—Meets every second and fourth Wednesday at Cosmopolitan Hall, 1818 Vine street. President, Virgil Burbridge, 1737 Denham street; recording secretary, Fred. Seidel, 2322 Harrison avenue; financial secretary, C. A. Palmer, 4222 Cherry street.

*No. 31, Duluth, Minn.—Meets first, third and fifth Thursday of each month, in Axa Building, 221 West Superior street. President, E. J. Damers, Duluth, Minn.; recording secretary, C. W. Higgins, 418 8th ave. west; financial secretary, W. L. Otis, 114 South 15th ave., east.

*No. 32, Lima, Ohio.—Meets first and third Tuesdays at Donze Hall, 218½ South Main street. President, Harry Davidson, 321 McPherson avenue; recording secretary, Charles L. Stout, 851 E. North street; financial secretary, E. D. Wentworth, 727 Holly street.

*No. 33, New Castle, Pa.—Meets every Wednesday night at G. A. R. Hall, corner of East and Washington streets, third floor. President, S. A. Wilkinson, Crawford ave.; recording secretary, F. D. Kingsley, 68 Pearson street; financial secretary, F. L. Truby, rear 124 Neshannock ave.

†No. 34, Peoria, Ill.—Meets first and third Mondays at Pettitt's Hall, 209 Liberty street. President, Geo. M. Akers, 1803 Lincoln avenue; recording secretary, Frank Mattlin, 400 North Adams street; financial secretary, L. T. Henry, 319 Main street.

*No. 35, Massillon, Ohio.—Meets second and fourth Wednesdays at Trades' and Labor Assembly Hall, McAymonds Block. President, F. F. Flickinger, 183 Richville avenue; recording secretary, R. S. Hardgrove, 22 E. Charles street; financial secretary, A. Shorb, 382 West Tremont street.

†No. 36, Sacramento, Cal.—Meets Friday night at 1019 J street. President, W. H. Eastman; recording secretary, A. McDonald, 2530 M street; financial secretary, J. Noonan, 1120 Twentieth street.

†No. 37, Hartford, Conn.—Meets every Friday at Union Hall, 235 Asylum street. President, Andy Anderson, No. 4 Hunterford street; recording secretary, James McDonald, 64 Grove street; financial secretary, Dan Murphy, 34 Russell street.

†No. 38, Cleveland, Ohio.—Meets every Tuesday at Foresters' Hall, 223 Champlain street. President, F. W. Bell, 1207 Pearl street; recording secretary, E. B. Horne, 953 Logan avenue; financial secretary, W. C. Harrington, 168 McHenry street.

*No. 39, Cleveland, Ohio.—Meets every Thursday at Arch Hall, 838 Ontario street. President, F. Hall, 88 Elton street; recording secretary, Geo. H. Gleason, 83 Prospect street; financial secretary, F. J. Sullivan, 83 Prospect street.

*No. 40, St. Joseph, Mo.—Meets Wednesday at A. O. U. W. Hall, 8th and Locust streets. President, Charles A. Waller, City Plant, Fifth and Olive streets; recording secretary, Wm. Dorsel, 1710 Calhoun street; financial secretary, Chas. B. Ellis, 1202 North Third street.

†No. 41, Buffalo, N. Y.—Meets every Thursday at Council Hall, Ellicott and Huron streets. President, L. W. Mills, 564 W. Utica street; recording secretary, E. W. Brown, 800 Vermont street; financial secretary, George Walker, 115 West avenue.

†No. 42, Utica, N. Y.—Meets first and third Fridays, at Labor Temple, 18 Hotel street. President, A. Durr, 8 Louise street; recording secretary, C. R. Stringer, 22 Cornelia street; financial secretary, W. J. Root, 272 Seymore avenue.

†No. 43, Syracuse, N. Y.—Meets Fridays (every Friday in the month) at Bartenders' Hall, Empire Building, West Genesee street. President, Charles Brand; recording secretary, James Andrews, 518 N. Salina street; financial secretary, John Kerwin, 105 Belmont street.

*No. 44, Rochester, N. Y.—Meets every other Wednesday at Electrical Workers' Hall, 86 State street. President, J. Desmond, 283 Glenwood avenue; recording secretary, P. H. Brennan, 42 Bartlett street; financial secretary, L. H. Kelly, 38 Lyndhurst street.

†No. 45, Buffalo, N. Y.—Meets every Saturday at Schwartz' Labor Hall, Washington and Goodell streets. President, James Steves, 202 Mulberry street; recording secretary, C. W. Brown, 120 Demond Place; financial secretary, Jas. M. Rimmer, 39 Pine street.

†No. 46, Baltimore Md.—Meet every Wednesday evening at 8:30 at 410 E. Fayette street. President, W. W. Moat, 941 W. Lexington street; recording secretary, R. J. Stewart, 763 W. Fayette street; financial secretary, C. V. Bahmer, 215 N. Fremont street.

*No. 47, Sioux City, Iowa.—Meets first and third Wednesday of each month at B. T. C. Hall, over 412 and 414 Douglas street. President, Arthur G. Garton, Vendome Hotel; recording secretary, N. J. Nelson, 1123 West Third street; financial secretary, Bert J. Boucher, Vendome Hotel.

*No. 48, Richmond, Va.—Meets every Tuesday night at McDonough's Hall, 700 W. Broad street. President, L. J. Johnson, 6 Seventh street; recording secretary, F. A. Fry, 608½ China street; financial secretary, J. D. Hamilton, 812 Brooks avenue.

†No. 49, Chicago, Ill.—Meets first and third Wednesdays, at Sam T. Jacks' Hall, 88 E. Madison street. President, Alex McGregor, 1807 Tripp avenue; recording secretary, Conrad Cornell, 956 Lincoln avenue; financial secretary, J. C. Jansen, 5841 Shields avenue.

*No. 50, Belleville, Ill.—Meets second and fourth Tuesdays at Antlers' Hall, A and Spring streets. President, Henry Christian, 103 East Main street; recording secretary, James Workman, 117 South Church street; financial secretary, F. W. Stark, 519 East C street.

*No. 51, Estacion, Monclova, Coahuila Mex.—Meets fourth Sunday in every month at Council Hall, Monclova, Coah., Mex. President, J. F. Wellage, C. P. Dloz, Coah., Mex.; recording secretary, William. Dukes, Jaral, Coah., Mex.; financial secretary, Frank Wallace, Box 11, Estacion, Monclova, Mex.

†No. 52, Newark, N. J.—Meets Monday nights at Electrical Workers' Hall, 236 Washington street. President, C. P. Taylor; recording secretary, F. Rosseter, 187 Sherman avenue; financial secretary, Edmund L. Beatty, 304 S. Ninth street.

*No. 53, Harrisburg, Pa.—Meets every Thursday at Holtsman's Cigar Store, 315 South Market street. President, Andrew C. Shaedler, 223 Locust street, Steelton Pa.; recording secretary, Chas. S. Ebersole, 183 South Fourteenth street; financial secretary, Carl A. E. Andersen, 46 Summit street.

†No. 54, Columbus, Ohio.—Meets every Thursday evening, at 7:30 at Lazarus Building, corner Town and High st. President, K. C. Taylor, 87 East Third avenue; recording secretary, D. C. Hagerty, 1100 Summit street; financial secretary, J. A. Pilger, 2493 Medary avenue.

*No. 55, Des Moines, Iowa.—Meets every Thursday at Trades' Assembly Hall, Seventh and Locust streets. President, C. J. Keller, 722 Eighth street; recording secretary, H. Frazey, 960 Fifth street; financial secretary, Charles Ladin, Thirty-eighth and Woodland avenue.

*No. 56, Erie, Pa.—Meets second and fourth Mondays at Metcalf's Hall, 724 State street. President, Nat. Barton, 1109 Myrtle street; recording secretary, Ed. Semmence, 711 W. Eighth st.; financial secretary, H. Garvin, 1015 Plum st.

†No. 57, Salt Lake City, Utah.—Meets every Thursday evening at Electrical Workers' Hall, 11 West First street, South. President, Robert Shipman, Box 402; recording secretary, H. M. Murray, Box 402; financial secretary, J. R. Currie, Box 402.

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*No. 58, Niagara Falls, N. Y.—Every Friday at Mayle Hall, 723 Third street. President, William Watts, 1629 Whirlpool street; recording secretary, H. W. Davis, 2202 Main street; financial secretary, C. P. Mingay, 1008 Fairfield avenue.

†No. 59, St. Louis, Mo.—Meets Mondays at 8 p. m. at Lightstone's Hall, 1028 Franklin avenue. President, Henry Kunderb, 8440 California avenue; recording secretary, W. D. McSorley, 1446 North Twenty-First street; financial secretary, E. N. Hardy, 2818A Locust street.

*No. 60, San Antonio, Tex.—Meets first and third Saturdays at Trades Council Hall, Alamo street. President, J. P. Broderick, 722 South Princeton; recording secretary, W. B. Freeman, 808 Maverick street; financial secretary, John Thompson, 319 Lubbock street.

†No. 61, Los Angeles, Cal.—Meets every Thursday at Council of Labor Hall, 438 South Spring street. President, J. S. Marsh, 800 North Soto street; recording secretary, H. Warner, 135 South Main street; financial secretary, C. P. Lofthouse, 746 San Julian.

*No. 62, Youngstown, Ohio.—Meets first and third Tuesdays at Finn's Hall, northwest corner of Public Square. President, C. A. Onstott, 618 Covington street; recording secretary, M. McCabe, 245 East Rayen avenue; financial secretary, Bert Beaver, 212 Belmont avenue.

*No. 63, Warren, Pa.—Meets first and third Fridays at K. of H. Hall, Second street. President, C. W. Simpson, Warren, Pa.; recording secretary, Otto Bartsels, East Water street; financial secretary, N. H. Spencer, Box 1094.

†No. 64, Youngstown, Ohio.—Meets every second and fourth Wednesday night at Finn Hall, Public square. President, Wm. Cavanaugh, corner Edward and Mt. Pleasant street; recording secretary, C. F. Richards, 736 Lydia street; financial secretary, W. H. Griffith, 736 Crossman avenue.

*No. 65, Butte, Mont.—Meets first and third Fridays at I. O. G. T. Hall, West Broadway. President, L. E. Woodworth, P. O. Box 846; recording and financial secretary, Wm. Enders, P. O. Box 846.

*No. 66, Houston, Tex.—Meets first and third Wednesdays at Labor Hall, corner Preston and Caroline streets. President, J. H. Shipps, 1807 Congress avenue; recording secretary, A. A. Taylor, 1917 Milam st.; financial secretary, T. M. Flavin, 2601 Rannels avenue.

*No. 67, Quincy, Ill.—Meets second and fourth Thursday at Trade and Labor Hall, 619 Main street. President, L. S. Hull, 1815 Vermont street; recording secretary, F. G. Ernest, 828 Madison street; financial secretary, J. W. Redmond, 548 South Fourth street.

†No. 68, Denver, Colo.—Meets every Monday at 218 Charles Building. President, L. E. Norquist, Box 614; recording secretary, G. G. Macy, Box 614; financial secretary, C. F. Oliver, Box 614.

†No. 69, Dallas, Tex.—Meets every Thursday night at Labor Temple, 401 Main street. President, L. D. Short, 224 Columbia avenue; recording secretary, R. P. Richards, 556 Elm street; financial secretary, O. C. Blanton, 232 Ross ave.

*No. 70, Cripple Creek, Colo.—Meets first and second Wednesday following the 10th of month at (first) 126 E. Bennett ave; (second) 210 Victor ave, Victor. President, F. C. Burford, Box 684; recording secretary, C. R. Douglas, Box 684; financial secretary, E. P. Steen, Box 684.

†No. 71, Lancaster, Pa.—Meets second and last Sunday morning at 9:30 in Central Labor Union Hall, S. Queen and Milfin streets. President, James W. Brann, 315 W. James street; recording secretary, Wm. R. Blair, 341 East Walnut street; financial secretary, Wm. O'Connors, 446 South Christian street.

*No. 72, Waco, Tex.—Meets second and fourth Saturday nights at Labor Hall, Sixth and Franklin streets. President, J. P. Blystone, 513 Novetty street; recording secretary, F. B. Wornack, 805 Franklin street; financial secretary, J. E. Caple, 411 Washington street.

*No. 73, Spokane, Wash.—Meets every Monday evening at Central Labor Hall, Post street and First avenue. President, Ed Thomas, 909 Bishop court; recording secretary, G. P. Halford, P. O.

Box 635; financial secretary, D. W. Eberlin, 2514 E. Sixth avenue.

*No. 74, Winona, Minn.—Meets first and third Thursdays at Electrical Workers' Hall, 67 East Third street. President, George Morrison, 510 Olmstead street; recording secretary, John P. Fromm, 467 East Fourth street; financial secretary, H. B. Kline, 510 Olmstead street.

†No. 75, Grand Rapids, Mich.—Meets first and third Thursdays at Trades and Labor Council Hall. President, C. Lawrence; recording secretary, F. J. Dickerson, 20 Turner street; financial secretary, J. Maskel, 88 James street.

*No. 76, Tacoma, Wash.—Meets first and third Saturdays in Union Hall, 721 Commerce streets. President, A. M. Craig, South Fifty-eighth and O streets; recording secretary, J. E. Willis, 4121 Thomson avenue; financial secretary, C. A. Young, 4110 Yakima avenue.

†No. 77, Seattle, Wash.—Meets every Thursday at Musicians' Hall, 1420 Second avenue. President, John S. Wilson, 1818 Ninth avenue; recording secretary, C. J. Knago, 118 Tenth avenue, north; financial secretary, Geo. W. Walters, 222 Sixth avenue, north.

†No. 78, Atlanta, Ga.—Meets Tuesday nights at Federation Hall, Forsythe and Marietta streets. President, M. L. Goodhart, Marietta street; recording secretary, E. Boone, Oakland County, Ga.; financial secretary, H. Ashbaugh, 81 South Pryor street.

†No. 79, Syracuse, N. Y.—Meets first and third Mondays at Myers' Hall, corner of East Genesee and Montgomery streets. President, Edward Gyatt, 115 Burnet avenue; recording secretary, Cornelius O'Connor, 503 Hawley avenue; financial secretary, Edward Greene, 131 Mary Alley.

*No. 80, Norfolk, Va.—Meets every Tuesday at I. B. E. W. Hall, 268 Main street. President, H. A. Brock, P. O. Box 232; recording secretary, J. H. T. Smith, P. O. Box 232; financial secretary, E. E. Mathews, P. O. Box 232.

*No. 81, Scranton, Pa.—Meets first and third Monday at Street Car Men's Hall, 22 Lackawana avenue. President, T. B. Sturdevant, 815 Cedar avenue; recording secretary, N. K. Shenck, 611 Deacon street; financial secretary, Danl. Laverty, 388 Franklin avenue.

*No. 82, Henderson, Ky.—Meets first and third Tuesdays in each month in Powers' Hall, First street. President, A. F. Braum, 327 Second street; recording secretary, H. B. Jones 219 Green street; financial secretary, A. J. Quinn, 318 N. Elm street.

*No. 83, Milwaukee, Wis.—Meets every Friday at Lipp's Hall, corner Third and Prairie streets. President, J. R. Barry, 1826 Fon Du Lac avenue; recording secretary, O. A. Blackwood, 829 Franklin street; financial secretary, Nick Daleiden, 846 Thirty-third street.

*No. 84, Atlanta, Ga.—Meets every Wednesday in Atlanta Federated Trades Hall, 14½ North Forsyth street. President, George W. Olwell, 222 East Fair street; recording secretary, Jack Abbott, 101 Capitol avenue; financial secretary, Arthur R. Rogers, 421 Central avenue.

*No. 85, Sault Ste. Marie, Ontario, Can.—Meets every second and fourth Thursday at Turner Block, Queen and Brock streets, Northwest. President, R. C. Duffin, Sault Ste. Marie, Ont.; recording secretary, H. Lamberton, Sault Ste. Marie, West P. O.; financial secretary, R. B. Johnston, P. O. Box 470, Sault Ste. Marie, Ont.

†No. 86, Rochester, N. Y.—Meets every Monday at Electrical Workers Hall, 86 State street. President, W. W. Johnson, 49 Hudson street; recording secretary, R. E. Erhardt, 15 Lamber-ton Park; financial secretary, A. C. Beggy, Centennial building.

†No. 87, Newark, N. J.—Meets every Friday at Electrical Workers' Hall, 238 Washington street. President, W. McDonald, 832 Bank street; recording secretary, J. Leger, 150 First street; financial secretary, F. R. Greenwood, 50 Clinton street.

*No. 88, Savannah, Ga.—Meets second and fourth Monday evenings at Odd Fellows Hall, corner President and Whitaker streets. President, J. R. Dargon, Box 316; recording secretary, J. Farbsteln, Box 316; financial secretary, A. C. Bruecmann, Box 316.

*No. 89, Akron, Ohio.—Meets every other Friday at 89 Viaduct. President, G. M. Swartz; recording secretary, F. F. Loomis; 111 Viaduct.

*No. 90, New Haven, Conn.—Meets every Saturday evening at Forester's Hall, 781 Chapel street. President, Frank Horan, 57 Washington avenue; recording secretary, J. J. Wheeler, 156 Congress avenue. financial secretary, Frank Tanner, 156 Congress avenue.

*No. 91, Easton, Pa.—Meets second and fourth Friday nights at Easton Journal Building, Church street between Sitgreaves and North Third streets. President, George Strouse, Summit avenue, Phillipsburg N. J.; recording secretary, T. A. Martin, 808 Wilkesbarre street; financial secretary, W. C. Pearce, 40 Wilkesbarre street.

*No. 92, Hornellsville, N. Y.—Meets second and fourth Saturdays in each month at B. of R. T. Hall, Arcade Building. President, H. S. Brown, Hornellsville Tel. Co.; recording secretary, A. E. Kilne, Hornellsville Tel. Co.; financial secretary, R. Burdick, 9 Cottage avenue.

*No. 93, East Liverpool, O.—Meets every Wednesday night, in Smith-Fowler Building, on Diamond. President, H. Hetzel, corner Robinson and Walnut streets; recording secretary, S. G. Cowles, P. O. Box 382; financial secretary, R. C. Baxter, 178 Monroe streets.

*No. 94, Newance, Ill.—Meets second and fourth Saturday nights each month at Federation Hall, 218 N. Tremont st. President, E. R. Hashinger, 807 W. Division st.; recording secretary, Wm. H. Finley, 404 Rice street; financial secretary, Wm. Finley.

*No. 95, Joplin, Mo.—Meets every Thursday night at Labor Hall, Sixth and Wall streets. President, L. L. Haggard, 608 Amanda avenue; financial secretary, Chas. Nelson, Box 461.

*No. 96, Worcester, Mass.—Meets every Monday at Piper Hall, 419 Main street. President, L. D. Bull, 422 Park avenue; recording secretary, S. B. Wilker, 18 Shafner street; financial secretary, S. A. Strout, 419 Main street.

*No. 97, Mt. Vernon, O.—Meets every first and third Saturday night, at Quindaro, I. O. O. F., Hall, South Main street. President, F. D. Morrison, Mt. Vernon, Ohio; recording secretary, J. C. Jacobs, Mt. Vernon, Ohio; financial secretary, O. D. Layman, Ridgewood avenue.

*No. 98, Philadelphia, Pa.—Meets every Tuesday night at Elks' Hall, 232 N. Ninth street. President, G. Coleman; recording secretary, F. Peterson; financial secretary, Jas. S. Meade, 1821 Arch street.

*No. 99, Providence, R. I.—Meets every Monday night at Hanley Hall, 68 Washington street. President, A. W. Seavey, No. 1 Falcon street; recording secretary, R. A. Ripley, 1 North Court street; financial secretary, J. Herbert Bailey, 33 Douglass street.

*No. 100, Jacksonville, Fla.—Meets Thursdays at B. T. C. Hall, Bay street. President, G. B. Lampkin, General Delivery; recording secretary, I. E. Salehwell, 740 W. Monroe street; E. J. McDonnell, 702 W. Adams street.

*No. 101, Middletown, N. Y.—Meets second and third Thursdays, in Times building, King and Center streets. President, John Ayres, Central Building, North street; recording secretary, J. V. Callaghan, 37 Beattie, avenue; financial secretary, B. F. Giveans, 10 Washington street.

*No. 102, Paterson, N. J.—Meets every Thursday evening at Helvetia Hall, 56 Van Houten street. President, Frank H. Hopper, 50 Haledon avenue; recording secretary, N. Merrick, 74 Bloomfield avenue; financial secretary, R. Clark, 37 Benson street.

*No. 103, Boston, Mass.—Meets every Wednesday at Dexter Hall, 987 Washington street. President, L. W. E. Kimball, 5 Medland street, Dorchester, Mass.; recording secretary, Fred. J. Reardon, 48 Mystic street, Charlestown, Mass.; financial secretary, John W. Barton, 126 Cherry street, Chelsea, Mass.

*No. 104, Boston, Mass.—Meets every Tuesday at Appleton Hall, 9 Appleton street. President, William R. Reid, 1486 Columbus avenue; recording secretary, John A. McInnis, 23 Oak Grove Terrace, Roxbury, Mass.; financial secretary, Leod MacLeod, 8 Lincoln street, E. Somerville, Mass.

*No. 105, Hamilton, Ont.—Meets second and fourth Thursday at Trades and Labor Hall, 17 Main street, East. President, Alex. Tongie, 21 Grove street; recording secretary, W. J. Griffith, 266 Catharine street, north; financial secretary, Joseph Cullif, Kinsade avenue.

*No. 106, Jamestown, N. Y.—Meets Monday evening at Warner Block, Room 9, second floor. President, W. J. Bell, Hotel Ellicott; recording secretary, George H. Leburg, 802 East Second street; financial secretary, Wm. J. Torrey, 44 Park street, Jamestown, N. Y.

*No. 107, Pittsburg, Kans.—Meets every Tuesday at Schiellerbine Hall, Sixth and Broadway. President, Thomas Frew, 608 E. Seventh street; recording secretary, Rex Camblin; general delivery; financial secretary, Paul Mattingly, care Home Telephone Co.

*No. 108, Tampa, Fla.—Meets every Thursday night at Labor Union Hall, Franklin and Fortune streets. President, Jas. A. Arnold, 106 Cass street; recording secretary, James T. Maxon, Florida avenue and Scott street; financial secretary, John F. Vaughan, W. Twelfth ave.

*No. 109, Davenport, Iowa.—Meets every Thursday night at Danish Brotherhood hall, 607-609 W. Fourth streets. President, Clifton Perry, 523 Brady street; recording secretary, Joseph Lundsey, 406½ West Second street; financial secretary, Jas. Dallner, 202 East Fifth street.

*No. 110, Sandusky, Ohio.—Meets first and third Friday nights at Fusch's Hall, corner of Monroe and Fulton streets. President, C. McNeal, Jefferson street; recording secretary, Wm. Windisch, 506 Pearl street; financial secretary, Chas. Littleton, 321 Scott street.

*No. 111, Honolulu, Hawaii.—Meets first and third Thursdays at 7.30 p. m., Brooklyn Hall, Alaken between Queen and Merchant streets. President, Carl M. Taylor, Box 661; recording secretary, John Trueman, Hawaiian Electric Co.; financial secretary, A. R. G. McCormick, 1124 Adams Lane.

*No. 112, Louisville, Ky.—Meets every Tuesday night at Germania Hall, 107 W. Jefferson street. President, Neal Coopridge, 2718 W. Madison st. recording secretary, H. W. Rowlett, R. F. D. 2; financial secretary, F. H. Weaver, 738 Washington street.

*No. 113, Colorado Springs, Colo.—Meets every Friday, 122 Cucharras street. President, Jas. English, 5 E. Moreno street; recording secretary, Wm. Waldron, 122 E. Cucharras street, financial secretary, H. T. Paschal, P. O. box 1057.

*No. 114, Toronto, Can.—Meets first and third Wednesdays at Temple Building, corner Bay and Richmond streets. President, W. J. Middleton, F. Shaftsbury avenue; recording secretary, W. 18 Partello, 24 Louisa street; financial secretary, G. C. Beckett, 61 Duke street.

*No. 115, Austin, Tex.—Meets second and fourth Wednesdays at Trades Council Hall, over 1000 Cong. avenue. President, Geo. R. Felter, 110 W. avenue; recording secretary, E. D. Bralley, 509 Long ave.; financial secretary, B. B. Beard, 907 E. Third street.

*No. 116, Los Angeles, Cal.—Meets every Tuesday at Brents Hall, 534½ South Spring street. President, M. S. Culver, 1848 S. Grand avenue; recording secretary, E. Powelson, Station B; financial secretary, H. M. Scott, 2436 Wabash avenue.

*No. 117, Elgin, Ill.—Meets first and third Thursday, at Trades Council Hall, 102 Douglas avenue. President, I. C. Burney, 316 North Crystal street; recording secretary, T. H. Bryson, 54 Walnut avenue; financial secretary, D. J. Lee, 120 Grove avenue.

*No. 118, Dayton, O.—Meets Tuesday each week at Deister Post Hall, 25 N. Main street. President, C. Y. Sohnes, 112 Leonard street; recording secretary, E. W. Wysong, 371 N. Main street; financial secretary, C. M. Rike, 568 W. Fourth street.

*No. 119, Bluefield, W. Va.—President, B. Jones; financial secretary, Geo. Dodds.

*No. 120, London, Ont.—Meets third Tuesday in each month at Oriental Hall, Clarence street. President, G. Upshall, 569 William street; recording secretary, L. R. Folley, 189 Wellington street; financial secretary, G. H. Porter, box 385.

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†No. 121, Denver, Col.—Meets every Wednesday at Charles Bldg., room 202, Fifteenth and Curtis streets. President, B. A. Reser, 2410 Stout street; recording secretary, S. H. Cleary, 1218 W. Fourteenth street; financial secretary, S. H. Phillips, 1627 S. Emerson street.

*No. 122, Great Falls, Mont.—Meets Monday at Phelps' Building, corner Third street and Central avenue. President, F. D. Warde, Box 385; recording secretary, A. N. Thomas, Box 385; financial secretary, E. W. Frost, Box 385.

*No. 123, Wilmington, N. C.—Meets every Thursday over First National Bank. President, James Sutton, care C. R. L. & P. Co.; recording and financial secretary, E. C. Yarbrough, over Atlantic National Bank.

*No. 124, Galveston, Tex.—Meets second and fourth Fridays at Cooks' and Walters' Hall, 307½ Tremont street. President, Jos. Cohen, 18 Post Office street; recording secretary, Ed. F. Parks, Atlanta Hotel; financial secretary, John A. Rotter, 38th street between M and M½.

*No. 125, Portland, Ore.—Meets every Wednesday at Painters' Hall, No. 234½ Morrison street. President, Wm. Morris, 68 Seventh street; recording secretary, C. F. Canfield, 447 E. Davis street; financial secretary, Willis A. Rowe, 349 Couch street.

*No. 126, Little Rock, Ark.—Meets first and third Tuesday, at Labor Temple, Second and Main streets. President, Wm. Byers, 112 N. Cross street; recording secretary, W. H. Halliburton, Jr., 1419 Park avenue; financial secretary, E. M. Perkins, 917 North street.

†No. 127, New Rochelle, N. Y.—Meets second and last Friday in each month at Zippnick Hall, No. 10 Mechanic street. President, R. K. Johnson, No. 8 Lawton street; recording secretary, John Hughes, 8 Lawton street; financial secretary, H. B. Miller, 47 Gulion Place.

*No. 128, Alton, Ill.—Meets every first and third Friday at Squire Nathan's Law office, Second and Market streets. President, Curtis Hayes, 1240 Narrow street; recording secretary, Cy. Perkins, 618 State street; financial secretary, H. Paul Jewett, Third and Market streets.

*No. 129, Nashville, Tenn.—Meets every Saturday night at Labor Advocate Hall. President, C. Snider, 301 Church street; recording secretary, D. R. Johnson, 301 Church street.

†No. 130, New Orleans, La.—Meets every Thursday at 7 p. m., at Carpenter's Hall, St. Charles street near Paydrass. President, W. F. Ragan, 2210 Beenvill street; recording secretary, W. M. Fisher, 615 Third street; financial secretary, H. W. Thomas, 5238 Constance street.

†No. 131, Traverse City, Mich.—Meets second and fourth Tuesdays in month in Montague Hall, 127 E. Front street. President, A. Tolhurst, 323 W. Eleventh street; recording secretary, L. V. Beattie, 1011 E. Front street; financial secretary, Frank Alvord, 814 S. Division street.

†No. 132, South Bend, Ind.—Meets every two weeks on Monday evenings at Central Labor Hall, South Michigan street. President, Geo. N. Bams, 836 N. Main street; recording secretary, Wm. F. Qualls, Home Tel. Co.; financial secretary, N. J. Shoemaker, P. O. Box 803.

†No. 133, Detroit, Mich.—Meets every Wednesday night at Johnston's Hall, 34 Munroe avenue. President, F. W. Raymond, 650 Baker street; recording secretary, R. Lindsay, 242 Hubbard avenue; financial secretary, W. F. Tewksbury, 274 Porter street.

†No. 134, Chicago, Ill.—Meets every Thursday night at 196 East Washington street. President, Chas. L. White, 334 Monticello avenue; recording secretary, George O. Johnson, 196 Washington street; financial secretary, J. B. Wilson, 102 Franklin street.

*No. 135, La Crosse, Wis.—Meets every second and fourth Friday of each month at Bartles Hall, Jay street, bet. Fourth and Fifth. President, B. A. Emerton, 333 North Ninth street; recording secretary, C. A. Dittman, 815 N. Tenth street; financial secretary, J. L. Christie, 614 S. Fifth street.

*No. 136, Birmingham, Ala.—Meets first and third Fridays at Labor Temple, Twenty-first street. President, F. C. Powell, 3615 avenue C; recording secretary, R. S. Hoke, 322 53rd street,

Woodlawn, Ala.; financial secretary, J. E. B. Vincent, 2119 Third ave., care B. F. Barbor, Elec. Co.

*No. 137, Albany, N. Y.—Meets second and fourth Fridays at Beaver Block, Pearl and Norton streets. President, Benj. B. Smith, 270 Washington ave.; recording secretary, Jas. H. Crook, 178 Livingston avenue; financial secretary, G. D. Marmom, 238 N. Pearl street.

*No. 138, Fort Wayne, Ind.—Meets second and fourth Thursdays, at K. of L. Hall, Court street. President, P. B. Merz, 511 Holman street; recording secretary, E. J. Fisher, 127 E. Washington street; financial secretary, D. Mullen, 200 N. Barr street.

*No. 139, Elmira, N. Y.—Meets second and fourth Sundays at Federation of Labor Hall, 332 Carroll street. President, Benj. R. Phillips, 813 E. Second street; recording secretary, John Marvin, 609 East Church street; financial secretary, J. K. Packard, 372 West Fifth street.

*No. 140, Schenectady, N. Y.—Meets first and third Wednesdays at Carpenter's Hall, State street near Bridge. President, John H. Reed, 439 S. Center street; recording secretary, W. E. Crosby, 17-19 S. Center street; financial secretary, J. J. Dowling, corner Clinton ave. and Northern Boulevard, Albany, N. Y.

†No. 141, Wheeling, W. Va.—Meets every Friday night at Peabody Building, Room 207, Market street, between Eleventh and Twelfth streets. President, Eugene Hagen, 804 Market street; recording secretary, Ross Miller, 71 Sixteenth street; financial secretary, Earle C. Bell, 167 Fourteenth street.

†No. 142, Wheeling, W. Va.—Meets every Wednesday at I. B. E. W. Hall, Room 207 Peabody Building. President, W. T. McKee, 1203 Eoff st.; recording secretary, Geo. Wey, 189 Fifteenth st.; financial secretary, W. A. Kent, 1412 Market st.

*No. 143, Ashtabula, O.—Meets second and fourth Mondays, at O. L. U. Hall, Newbury Block, corner Main and Center streets. President, S. D. Eckler, 15 Tyler avenue; recording secretary, C. A. Amy, 17 Sycamore street; financial secretary, O. Myers, care Ashtabula Tel. Co.

*No. 144, Wichita, Kan.—Meets every Thursday night at Red Men's Hall, 400 East Douglas. President, T. L. Roberts, 314 N. Hydraulic street; recording secretary, Philip F. Kennie, care Western Union; financial secretary, S. C. Pratt, 710 S. Market street.

*No. 145, Saginaw, Mich.—Meets Wednesday night at Engineer's Hall, 218 Genesee avenue. President, J. Crandall, 1103 S. Warren avenue; recording secretary, F. Smith, 923 Jackson street; financial secretary, C. Hillman, 816 S. Baum st.

*No. 146, Bridgeport, Conn.—Meets Wednesday of each week at Royal Arcanum Hall, 1106 Main street. President, J. T. Rooney, P. O. box 623; recording secretary, J. W. Peck, P. O. box 623; financial secretary, Michael McMahon, 867 Main street.

*No. 147, Anderson, Ind.—Meets every Friday night at Bricklayer's Hall, 909 Main street. President, H. C. Minor, care D. & M. Tel. Co.; recording secretary, F. Hess, D. & M. Tel. Co.; financial secretary, O. Kendall, 510 W. Ninth street.

†No. 148, Washington, D. C.—Meets Monday night at Royal Hall, 1301 Seventh street north west. President, J. F. Dixon, 419 A street north east; recording secretary, E. M. Grimsley, 1408 Georgia avenue southeast; financial secretary, M. V. Murphy, 808 Fifth street northeast.

*No. 149, Aurora, Ill.—Meets second and fourth Tuesdays at Trade's Assembly Hall, on Island. President, Robert Gilmore, 228 S. Broadway; recording secretary, E. A. Wood, 218 Benton street; financial secretary, Ed. Millhouse, 23 North Broadway.

*No. 150, Bay City, Mich.—Meets second and fourth Tuesdays at A. O. U. W. Hall, corner Center and Adams streets. President, Jas. Hodgins, 1317 Eleventh street; recording secretary, W. D. Parker, Essexville, Bay County, Mich.; financial secretary, Charles Crampton, City Hall, Bay City, Mich.

†No. 151, San Francisco, Cal.—Meets every Tuesday at Machinist's Hall, 1169 Mission near

Elighth street. Headquarters, 921 Market street. Pres. H. B. Taylor, 605 Post St.; recording secretary, Wm. Coyle, 1726 12th ave. So.; financial secretary, James C. Kelly, 50 Webster street.

*No. 152, Ft. Scott, Kan.—Meets first and third Thursdays at Painters' Hall, 201 Market street. President, J. D. Runkle, 520 N. National avenue; recording secretary, J. E. White, 520 N. National avenue; financial secretary, S. P. Armstrong, 110 N. Judson street.

*No. 153, Marion, Ind.—Meets every Tuesday night at Riley Hall, northwest corner Third and Washington streets. President, Frank J. Smith, 2110 South Gallatin street; recording secretary, Ora Drischol, 358 E. Swoyzee street; financial secretary, H. C. La Follette, Third and Baldwin avenue.

*No. 154, Rock Island, Ill.—Meets first and third Thursdays at Turner Hall, 1620 Third avenue. President, A. Ballard, 1217 15 $\frac{1}{2}$ street, Moline, Ill.; recording secretary, C. S. Wangelin, 1928 Ninth avenue; financial secretary, A. Coe, 923 Fourth avenue.

*No. 155, Oklahoma City, O. T.—Meets every Wednesday night at No. 4 West California street. President, J. M. Brown, 316 W. Chocata street; recording secretary, C. F. Blocher, Mo. and Kan. Tel. Co.; financial secretary, J. C. Clark, 1020 West First street.

*No. 156, Ft. Worth, Tex.—Meets every Wednesday night at B. T. O. Hall, 210 Main street, third floor, Powell Building. President, Frank Swocare Kane the electrician; recording secretary, Lee Stephens, 602 West First street; financial secretary, J. W. Wilkinson, 1202 Main street.

*No. 157, Elkhart, Ind.—Meets first and third Thursday of every month, Central Labor Hall, corner Main and Franklin streets. President, L. D. Whittig, Prairie street; recording secretary, Fred Livingston, Box 285; financial secretary, Asa Kinteler, R. F. D. No. 1.

†No. 158, Temple, Tex.—Meets second and fourth Tuesdays at Odd Fellows' Hall, Avenue A. President, Guy Briant, P. O. Box 835; recording and financial secretary, H. S. Newland, 506 S. Eleventh street.

*No. 159, Madison, Wis.—Meets first and second Thursdays in each month at Labor Hall, corner State and Mifflin street. President, John A. Johnson, 128 North Franklin st; recording secretary, E. J. Winsor, 1149 East Gorham street; financial secretary, Fred Ingram, 530 W. Doty street.

*No. 160, Zanesville, O.—Meets first and third Tuesday at 7.30 p. m., at Building Trades Hall, over 208 Main street. President, F. J. Poyner, 5 Bell Flats; recording secretary, John Mangin, Kirk House; financial secretary, A. E. DeLong, Route 8, Zanesville.

*No. 161, Uniontown, Pa.—Meets first and third Fridays at Trades and Labor Council Hall, Main street. President, Jas. Riffe, Uniontown, Pa.; recording secretary, J. F. Morrow, No. 9 Commercial street; financial secretary, W. L. Lacey, 28 Wilson avenue.

†No. 162, Omaha, Neb.—Meets every Thursday evening, at Labor Temple, Fifteenth and Dodge streets. President, J. P. Hannaher, Labor Temple; recording secretary, B. H. Limenberger, Labor Temple; financial secretary, J. C. Grimm, Labor Temple.

*No. 163, Wilkesbarre, Pa.—Meets second and fourth Mondays at Building Trades Council Hall, 81 West Market street. President, J. J. McGlynn, 890 E. South street; recording secretary, Thomas Moore, 86 North Sherman street; financial secretary, D. H. Ebert, 400 Scott street.

†No. 164, Jersey City, N. J.—Meets Monday, Fehren's Hall, 168 Beacon avenue. President, J. A. Brennan, 1804 Washington street, Hoboken; recording secretary, Otto Bauer, 187 Griffith street; financial secretary, Edward F. Kenna, 1119 Washington street, Hoboken N. J.

*No. 165, Newport News, Va.—Meets every other Tuesday evening at C. L. U. Hall, corner Thirty-second street and Washington avenue. President, J. W. Driver, 1015 Twenty-sixth street; recording secretary, E. C. Kelly, R. F. D. No. 1, Hampton, Va.; financial secretary, R. A. Gentis, 1137 Twenty-fourth st.

*No. 166, Winnipeg, Manitoba, Can.—Meets second and fourth Thursdays at Trades Hall, corner

Market and Main. President, H. Lamberton; recording secretary, J. S. Milne, 647 Elgin ave.; financial secretary, W. Girard, 118 Hallett st.

*No. 167, Pittsfield, Mass.—Meets first and third Wednesdays at Old England Block, North street. President, Fred A. Wood, 51 Briggs ave.; recording secretary, J. G. Crown, 81 Maplewood ave.; financial secretary, I. G. King, 84 Parker street.

*No. 168, Parkersburg, W. Va.—Meets Wednesdays at Bricklayers' Hall, Court Square. President, G. T. Henderson, Williamstown, W. Va.; recording secretary, J. R. Mayhew, Avery street; financial secretary, W. C. Vaughan, 1017 Lynn street.

*No. 169, Fresno, Cal.—Meets every Monday at Union Hall, 1123 K street. President, A. L. Moore, 940 H street; recording secretary, H. F. White, 2029 Fresno street; financial secretary, C. T. McShany, Box 1801.

*No. 170, Mason City, Iowa.—Meets first and third Thursday evenings at Howe's Hall cor. Fourth and Main streets. President, A. H. Ramsey, 216 South Washington street; recording secretary, F. W. Roberts, 214 East Tenth street; financial secretary, J. D. Templin, 771 East State street.

*No. 171, Ann Arbor, Mich.—Meets first and third Saturdays at Trades Council Hall, South Main street. President, Geo. F. Haggitt, 18 River st., Ypsilanti; recording secretary, Foster Ostrander, Ypsilanti; financial secretary, F. C. Phelps, 114 Felch street.

*No. 172, Newark, Ohio.—Meets every Friday night at I. B. E. W. Hall, 11 $\frac{1}{2}$ E. Church street. President, L. A. Slack, Citizens' Tel. Co.; recording secretary, Sam. C. Alledort, 81 Ninth street; financial secretary, D. S. Hollister, 405 Andover street.

*No. 173, Ottumwa, Iowa.—Meets second and fourth Wednesdays at Labor Hall, East Second street. President, K. C. Carruthers, S. Ottumwa; recording secretary, S. W. Speer, 917 E. Main street; financial secretary, T. Tracy, 549 W. Main street.

*No. 174, St. Johns, N. B.—Meets first and third Wednesdays at Berryman's Hall, corner Princess and Charlotte streets. President, D. H. Melvin, 37 High street; recording secretary, John W. Mathison, 11 Metcalfe street; financial secretary, Oltis H. Tracy, 83 Cliff street.

*No. 175, Benton Harbor, Mich.—Meets every Wednesday, Robinson Block, 110 Pipestone street. President, R. G. Moats, 126 Summit street; recording secretary, R. Emerson, 613 Broad street, St. Joseph, Mich.; financial secretary, C. C. Maddox.

*No. 176, Joliet, Ill.—Meets every Wednesday at Labor Hall, Jefferson and Ottawa street. President, Ray Allen, 425 Chicago street; recording secretary, A. J. Scheuber, 219 N. Broadway; financial secretary, Denny Wright, 401 Chicago street.

*No. 177, Paducah, Ky.—Meets Second and fourth Mondays at Central Labor Hall, corner of Seventh and Court streets. President, J. Farmer, 427 Clark street; recording secretary, Ed. Juett, care People's Tel. Co.; financial secretary, H. C. Rawling, 427 Clark street.

*No. 178, Canton, Ohio.—Meets first and third Wednesday at Brown's Hall, 1409 West Tus street; President, Hugh Williams, 515 E. North street; recording secretary, W. B. Thayer, 808 Lawrence avenue; financial secretary, H. T. Seymour, 1409 West Tus street.

*No. 179, Charleston S. C.—Meets every second and fourth Friday night at Knights of Pythias Hall, King street opposite Marion Square. President, I. R. Ward, So. Bell Tel. and T. Co.; recording secretary, J. K. Wilson, So. Bell and T. Co.; financial secretary, Samuel Webb, 141 Meeting street.

*No. 180, Vallejo, Cal.—Meets first and third Friday at Labor Council Hall, Sacramento street. President, L. A. Thatcher, 222 Capitol street; recording and financial secretary, R. M. Plunkett, 230 York street.

†No. 181, Utica, N. Y.—Meets third Tuesday at Labor Temple, Hotel street, Utica, New York. President, John Greenwood, 82 Roberts street; recording secretary, Herman Wameling, 247

Seymour avenue; financial secretary, Edward T. Fox, 199 Court street.

*No. 182, La Cananea, Sonora, Mex.—Meets every Monday evening, 8.00, at Y. M. C. A. President, A. C. Brown, La Cananea, Sonora; recording secretary, Sid Carles, La Cananea, Sonora; financial secretary, O. P. Gray, La Cananea Sonora.

*No. 183, Lexington, Ky.—Meets second and fourth Tuesday nights at Vanderen Hall, West Main street, third door east of Broadway. President, R. T. De Moss, 122 Brand avenue; recording secretary, Smith Parks, 243 East Main st.; financial secretary, O. M. Wynheir, 557 East third street.

*No. 184, Galesburg, Ill.—Meets first and third Wednesdays of every month at Trades Assembly Hall, corner Main and Boone avenue. President, J. H. Shull, 266 Duffield avenue; recording secretary, Roy Squires; financial secretary, John Norwood, 149 E. Brooks street.

*No. 185, Helena, Mont.—Meets first and third Saturdays at Rooms 26, 27, 28 Atlas Block, No. 7 Main street. President, Frank Avery, P. O. Box 1227; recording secretary, Alex. Jones, P. O. Box 1227; financial secretary, C. H. Coar, P. O. Box, 1227.

*No. 186, Hartford, Conn.—Meets every Tuesday at Stationary Engineers' Hall, Times Bldg. President, J. Owens, 85 Hawthorne street; recording secretary, E. O. Sperry, 55 Grand street, New Britain; financial secretary, E. O. Sperry, 66 Kensington street, New Britain, Conn.

*No. 187, Oshkosh, Wis.—Meets every Tuesday night at Stationary Engineers' Hall, cor. State and Otter streets. President, Emil Prong, 16 Carr street; recording secretary, Robert Waters, 187 Wango street; financial secretary, P. S. Bixby, 140 Pearl street.

*No. 188, Dallas, Tex.—Meets every Wednesday at Labor Hall, Elmand Scotland Court. President, E. A. White, 182 N. Akard; recording secretary, E. E. Loper, 269 Cochran street; financial secretary, Chas. Bush, 311 Wood street.

*No. 189, Chester, Pa.—Meets every Monday night at Beale Block, Sixth and Edgemont ave. President, John F. Owens, Chester; recording secretary, John Lamont, 123 Concord avenue; financial secretary, Andrew Sullivan, Chester.

*No. 190, Newark, N. J.—Meets second and fourth Thursdays at Electrical Workers Hall, 236 Washington street. President, John C. Brennen, 864 New street; recording secretary, Wm. Varley, 250 Clifton avenue; financial secretary, Joseph R. Hoch, 864 New street.

*No. 191, Everett, Wash.—Meets every Thursday night at Labor Temple, 2820 Lombard street. President, Severn Patterson, 3004 Federal street; recording secretary, W. H. Riggs, 3209 Oak ave.; financial secretary, L. V. Harper, P. O. Box 228.

*No. 192, Memphis, Tenn.—Meets every Tuesday at United Labor Temple, 354 Second street. President, Geo. A. Hulbert, 148 Adams street; recording secretary, Frank Underwood, 148 Adams street; financial secretary, G. L. Hamilton, 148 Adams street.

*No. 193, Springfield, Ill.—Meets every Tuesday at I. B. E. W. Hall, 210½ S. Fifth street. President, L. B. Johnson, 528 N. Fifth street; recording secretary, S. Dillard, 1141 N. Walnut street; financial secretary, W. E. Oliver, 222 N. Fifth st.

*No. 194, Shreveport, La.—Meets every Tuesday night at Labor Hall, corner of Texas and Common streets. President, W. A. Holt, 1107 Reynolds street; recording secretary, S. E. Blodgett, Arcade Hotel; financial secretary, R. L. Curtis, 823 Walnut street.

*No. 195, Salt Lake City, Utah—Meets Sundays at 10 a. m., in Jennings Block, First, South and Main street. President, George W. Setell, No. 4 Clift Place; recording secretary, E. L. Nourse, Hotel Richelieu, Second So. and Third, East; financial secretary, J. E. Gillett, 176½ W. South Temple.

*No. 196, Rockford, Ill.—Meets first and third Fridays at Electrical Workers Hall, 809½ West State street. President, Clarence Bennett, 414 S. Madison street; recording secretary, Harry J. Miller, 534 Woodlawn ave.; financial secretary, L. C. Williamson, 528 W. State street.

*No. 197, Bloomington, Ill.—Meets every Friday at Electrical Workers' Hall, over 106 West Front street. President, J. J. Eversole, P. O. Box 274; recording secretary, C. J. Winters, P. O. Box 274; financial secretary, W. S. Briscoe, Box 238.

*No. 198, Dubuque, Iowa.—Meets second and fourth Wednesdays at Facade Building, Room 1. President, F. Chalder, 57 Grand View ave.; recording secretary, Ed A. Peters, care of St. George Hotel; financial secretary, J. N. Krah, Lock Box 103.

*No. 199 St. Louis, Mo.—Meets Thursday at 8 p. m., Union Hall, northeast corner Eleventh and Chestnut st. President, T. F. Lappin, 4058 Connecticut street; recording secretary, H. J. Matthews, 3009 Manchester avenue; financial secretary, W. J. Kelley, 2914 Madison street.

*No. 200, Anaconda, Mont.—Meets first and third Tuesdays, Mattie Block, East Commercial avenue. President, W. Hurst, P. O. Box 483; recording secretary, Jas. O'Mara, P. O. Box 483; financial secretary, J. H. Davis, P. O. Box 483.

*No. 201, Appleton, Wis.—Meets first and third Tuesday of each month at Master Builders' Hall, corner Edward and Appleton streets. President, J. Tempas, 1024 Sixth street; recording secretary, Wm. F. Kerns, 805 N. Division street; financial secretary, U. J. Deuster, 665 Appleton street.

*No. 202, Seattle, Wash.—Meets second Tuesday of every month in Hotel Seattle Building, Occidental avenue and Yesler street. President, J. Horning, East Lake avenue and Gaylor street; recording secretary, Gus Soderberg, Eighth avenue and Pike street; financial secretary, L. H. Brickley, 314½ Ninth avenue, North.

*No. 203, Champaign, Ill.—Meets every Tuesday night, at Odd Fellows Building, 7 and 9 Neil street. President, H. G. Eastman, 408 North Elm street; recording secretary, John C. McDonald, 1103 West Clark street, Urbana, Ill.; financial secretary, A. L. Chandler, 717 N. Randolph street.

*No. 204, Springfield, Ohio.—Meets every Monday at Trades and Labor Hall, Main street and Walnut alley. President, Freeman S. Durling, rear of 139 W. Main street; recording secretary, David Eifer, 85 E. Pleasant street; financial secretary, P. F. Dye, 17 N. Factory street.

*No. 205, Jackson, Mich.—Meets first and third Tuesday at Labor Hall, corner Jackson and West Main streets. President, E. Osborn, 511 North Jackson street; recording secretary, Wm. Lawrence, 816 Greenwood avenue; financial secretary, F. C. Lewis, 427 W. Wilkins street.

*No. 206, Hamilton, Ohio.—Meets every Monday night at Monument Hall, High and River streets. President, R. Hall, Sixth and Sycamore streets; recording secretary, A. Hickman; financial secretary, Wm. Line, 317 North Eleventh street.

*No. 207, Stockton, Cal.—Meets every Tuesday, at Turner Hall, 110 North Hunter street. President, Frank Ellison, 229 South Sutter street; recording secretary, Wm. E. Lee, 539 South American street; financial secretary, James R. Wagner, 603 West Park street.

*No. 208, Muscatine, Iowa.—Meets second and fourth Fridays of each month at Trades and Labor Assembly Hall, 105-107 Iowa avenue. President, David P. Patterson, 412 W. Sixth street; recording secretary, J. A. Lawrence, 1817 Mulberry street; financial secretary, W. F. Demorest, 206 East Second street.

*No. 209, Logansport, Ind.—Meets every Thursday at hall on the corner Broadway and Third streets. President, J. W. Abshire, 1930 Spear street; recording secretary, Nate Costenbolder, 820 Race street; financial secretary, Chas. M. Ray, Rural Route No. 1.

*No. 210, Atlantic City, N. J.—Meets every Wednesday night at Odd Fellows Hall, S. New York avenue. President, Geo. A. Orr, 139 Mt. Vernon avenue; recording secretary, I. N. Cramer, rear 12 South Ohio ave.; financial secretary, C. H. Towne, 1515 Pacific ave.

*No. 211, Atlantic City, N. J.—Meets every Friday night in G. A. R. Hall, S. New York avenue. President, Harry D. Brown, 1806 Ontario ave.; recording and financial secretary, E. W. McCann, Alcazar.

July 1, 1904
 †No. 212, Cincinnati, O.—Meets every Wednesday at Cosmopolitan Hall, 1818 Vine street. President, Joseph A. Cullen, 962 W. Sixth street; recording secretary, Harry Falquet, 1125 Jackson street; financial secretary, W. B. Kelley, Norwood, O.

*No. 218, Vancouver, B. C.—Meets second and fourth Thursdays at O'Brien's Hall, corner Hastings and Homer streets. President, Geo. Cowling, 152 Dufferin street; recording secretary, Geo. P. Farr, Barber Electrical Co.; financial secretary, T. G. Bird, 161 E. Hastings st.

*No. 214, Olcott, N. Y.—Meets every Friday at Fountain Hose House, First street. President, E. R. Klamt, N. Fifteenth street; secretary F. E. Dellinger, 121 South Twelfth street.

*No. 215, Hot Springs, Ark.—Meets every Tuesday night, rear of Plateau Hotel, Chapel street. President, W. B. Subrick, Lone Star Hotel; recording secretary, E. C. Waite, Gen'l Del.; financial secretary, Guy Tracy, Gen'l Del.

*No. 216, Owensboro, Ky.—Meets every Tuesday at Main and St. Elizabeth streets. President, A. D. Faught, 326 St. Elizabeth street; recording secretary, J. H. Carnell, 424 St. Ann street; financial secretary, H. A. Leisher, 117 Frederica street.

†No. 217, Seattle Wash.—Meets Mondays at Masonic Temple, Second and Pike streets. President, Chas. Crickmore, 928 35th avenue; recording secretary, Ed. Lemon, 1928 5th avenue; financial secretary, W. W. Morgan, 450 6th avenue.

*No. 218, Sharon, Pa.—Meets every alternate Friday night at Grimm Hall, West State street. President, C. D. Brown, Hubbard, Ohio; recording secretary, Chas. Ault, Rankin House; financial secretary, R. D. Hilliard, Box 80.

*No. 219, Sullivan, Ind.—Meets first and third Tuesday night at Electric Plant Building. President, S. M. Riggs; recording secretary, J. E. Stanfield, Sullivan, Ind.; financial secretary, N. S. Worley.

†No. 220, Rochester, N. Y.—Meets first and third Tuesdays in month at Durand Building, West Main street. President, P. J. Cotter, 98 Ontario street; recording secretary, C. H. Thompson, 25½ Ontario street; financial secretary, E. C. Thompson, 14, 435 Main street east.

†No. 221, Beaumont, Tex.—Meets every Friday at Furey's Hall, on The Triangle. President, J. H. Cousins, 871 Cypress street; recording secretary, Geo. Mayo, 350 Cypress street; financial secretary, R. B. Delahunty, 2006 Railroad ave.

*No. 222, Lafayette, Ind.—Meets every Thursday at Brick Masons' Hall, Tenth and Main streets. President, F. E. Williams, 418 N. Fifth street; recording secretary, E. S. Klinker, 1615 Tippecanoe street; financial secretary, Walter Hawkins, 1621 Casson street.

†No. 223, Brockton, Mass.—Meets second and fourth Tuesdays, room 114 Arcade Building, 139 Main street. President, Chas. E. Cole, 416 School street, Whitman; recording secretary, Harry R. Allen, 46 Fuller street; financial secretary, Harry R. Allen, 46 Fuller street.

*No. 224, Ft. Dodge, Iowa.—Meets second and fourth Tuesday of each month at headquarters of Trade and Labor Unions, 721½ Central avenue; President, C. J. Hakes; recording secretary, D. W. Lyman, care F. D. T. G.; financial secretary, D. W. Layman, 620½ Central avenue, Room 6.

*No. 225, Topeka, Kans.—Meets every Wednesday at Trades' Assembly Hall, 711 Kansas avenue. President, C. H. Baxter, Crawford Flat No. 2; recording secretary, Paul Robinson, Ohio House; financial secretary, D. C. Platt, 502 Chandler street.

†No. 226, Cedar Rapids, Iowa.—Meets first Thursday evening in each month at Federation Hall, cor. First avenue and Second street. President, L. J. Schranck; recording secretary, Frank Thomas, 125 F avenue, west; financial secretary, Alex Sampson, 521 Third ave.

†No. 227, Birmingham, Ala.—Meets every Wednesday night at Fox's Hall, corner Fourth avenue and 19th street. President, G. W. Brown, 312 North Eighteenth street; recording secretary, B. C. Jewell, Peoples Tel. Co.; financial secretary, D. Harper, Southern Bell Tel. Co.

*No. 228, Oil City, Pa.—Meets first and third Tuesdays at K. of P. Hall, Center and Elm streets.

President, H. Bocel, 19 Grove avenue; recording secretary, W. A. Humes; financial secretary, J. W. Bullock, 313 Pine street.

*No. 229, Manchester, N. H.—Meets first Tuesday of each month at Building Trades Hall, 843 Elm street. President, W. P. Michie, Old City Hotel; recording secretary, Chas. W. Warner, 75 Sagamore street; financial secretary, R. Sheer, No. 9 C street.

*No. 230 Victoria, B. C.—Meets every third Friday at Labor Hall, corner Johnson and Douglas streets. President, E. Routh, 62 Government street; recording secretary, F. F. McKittrick, 145 Chatham street; financial secretary, E. C. Knight, 200 Douglas street.

†No. 231, Grand Rapids, Mich.—Meets second and fourth Friday evenings at Lincoln Club Rooms, 66-68 Pearl street. President, L. B. Denton, care G. R. Elec. Co.; recording secretary, V. L. Fausey, 570 S. East street; financial secretary, H. R. Erdmann, 449 Terrace avenue.

*No. 232, Schenectady, N. Y.—Financial secretary, W. Purcell, 114 Union street.

†No. 233, Colorado Springs, Colo.—Meets every Thursday at Building Labors Hall, over 12 East Huerfano street. President, D. C. Walsh, P. O. Box 654; recording secretary, Robt. J. Clark, P. O. Box 654; financial secretary, F. M. Jahn, P. O. Box 654.

†No. 234, Schenectady, N. Y.—Meets first and third Saturdays of each month at Mohawk Hall, Bradgate Bldg., cor. State and Center streets, 7:30 p. m. President, Wm. Armor, 4 Catherine street; recording secretary, S. Finkenstein, Hotel St. Clair; financial secretary, C. A. Sherman, 338 Carrie street.

†No. 235, Cincinnati, Ohio.—Meets Thursday at Joseph's Hall, Twelfth and Vine streets. President, Levi M. Ringle, Josephs Hall, southwest cor. Twelfth and Vine streets; recording secretary, H. D. Kibby, 132 Saunders street, Mt. Aubin, Cincinnati, Ohio; financial secretary, Joe Early, 2019 Breen street.

*No. 236, Streator, Ill.—Meets first and third Monday nights at Casey's Hall, 107 East Main street. President, H. M. Griffith, N. Bloomington; recording secretary, Geo. Duffner, 514 W. Bridge street; financial secretary, J. A. Shuler, 309 East Bridge street.

*No. 237, Lorain, Ohio.—Meets every Thursday night at Wagner Hall, southeast corner E. Erie and Broadway. President, E. E. Falconer, 231 Gregg avenue; recording secretary, J. F. Smith, 323 Franklin street; financial secretary, A. C. Marsh, 440 Sixth street, Elyria, Ohio.

*No. 238, Asheville, N. C.—Meets every Saturday at C. L. U. Hall, 39 Patton avenue. President, E. H. Clenenger, Western Union Telegraph Office; recording secretary, J. N. Welch, Western Union Co.; financial secretary, J. H. Graham, 140 Bailey street.

No. 239, Newark, N. J.—Electric fixture fitters, wiremen, and hangers—Meets first and third Thursday at Electrical Workers Hall, 286 Washington street. President, Wm. G. Scheussler, 241 Camden street; recording secretary, Harry Schnarr, 185 North Fourth street; financial secretary, Michael Tanenbaum, 104 Hunterdon st.

No. 240, Philadelphia, Pa.—Telephone.—Meets every Thursday at Electrical Workers' Hall, S. E. corner Darien and Vine streets. President, Joseph Stern, 2340 W. Albert street; recording secretary, John Boone, 2330 Coral street; financial secretary, Wm. J. Gillin, Jr., 1532 N. Garnet street.

†No. 241, Dayton, Ohio.—Meets every Monday night at Palm Garden Hall, 315 South Jefferson street. President, Thomas E. Fisher, 54 Logan street; recording secretary, Harry Toot; 10 Hawken street; financial secretary, C. Reiter, 31 Rung street.

*No. 242, Decatur, Ill.—Meets every Friday night at Room 416, Powers' Building, cor. South Water and East Main streets. President, E. O. Baker, Room 16 Syndicate Block; recording secretary, Jno. Simon, 416 Powers Building; financial secretary, A. Frazier, 416 Powers Building.

*No. 243, Vincennes, Ind.—Meets every Wednesday night at Odd Fellows Building, corner Second and Broadway street. President, Joe Eheart; recording secretary, Lester Johnson,

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210 Vallmer street; financial secretary, C. F. Green, 621 North Seventh street.

†No. 244, East Mauch Chunk, Pa.—Meets first and third Sunday, 2 p. m., at Hess' Hall, Center street, between Fourth and Fifth. President, Wren Brown, East Mauch Chunk, Box 293; recording secretary, Anthony Armbruster, East Mauch Chunk, Box 232; financial secretary, J. P. Tracy, East Mauch Chunk, Box 195.

†No. 245, Toledo, O.—Meets every Friday night at Mulcahays Hall, 714 Monroe street. President, J. Callahan, 912 Vinton street; recording secretary, Jas. Shea, 226 Platte street; financial secretary, O. H. Lewis, 820 Magnolia street.

*No. 246, Steubenville, O.—Meets first and third Fridays of month at Druids' Hall, N. Fourth st. President, S. M. Richards, 100 South street; recording secretary, F. E. Wagner, Clarendon Hotel; financial secretary, Dr. E. D. Richards, 8rd and South streets.

No. 247, Schenectady, N. Y.—Meets first and third Fridays of each month at Trades Assembly Hall, State street, near Canal bridge. President, Arthur E. Sparks, 20 Cora street; recording secretary, Herbert U. Merrill 110 State street; financial secretary, R. C. Schermerhorn, 840 Palge street.

*No. 248, Chillicothe, Ohio.—Meets second and fourth Fridays at Federal Labor Union Hall, 153 East Fifth street. President, E. O. Jackson, 157 West Wotter street; recording secretary, Strawder J. Swyers, 89 E. Second street; financial secretary, Strawder J. Swyers, 89 E. Second street.

*No. 249, St Catharines, Ontario.—Meets second and fourth Tuesday, each month, at Trades and Labor Hall, St. Paul street. President, J. W. Johnson, St. Catharines, Ontario; recording secretary, J. Charles Clifford, St. Catharines, Ontario; financial secretary, Joseph Lappin, St. Catharines, Ont.

*No. 250 San Jose, Cal.—Meets every Tuesday in Phelan Hall, corner First and Post streets. President, Jno. Guilbert, 147 East St. James street; recording secretary, Nick Cooper, 397 West San Carlos street; financial secretary, J. W. Hilton, No. 57 South Seventh street.

*No. 251, Pine Bluff, Ark.—Meets first and third Wednesdays at Carpenters Hall, 112½ W. Banague streets. President, B. R. Brown, P. O. Box 248; recording secretary, Vernon Mullen, P. O. Box 248; financial secretary, J. W. Johnson, P. O. Box 248.

*No. 252, Schenectady, N. Y.—Meets third Thursday each month at Ellis' Building, State street, next canal bridge. President, Charles Heffernan, 306 Jay street, continued; recording secretary, Samuel McKinney, 937 Albany street; financial secretary, C. A. Bates, Box 655.

*No. 253, Cedar Rapids, Iowa.—Meets second and fourth Sunday mornings at 10.30 at Union Hall, corner of First avenue and Second street. President, Tony Weidlich, 1036 South Sixth street, west; recording secretary, S. L. Stafford, 500 Seventh avenue, west; financial secretary, C. A. Isentraut, Iowa Tel. Co.

No. 254, Schenectady, N. Y.—Switch-board Makers.—Meets second and fourth Tuesdays at Machinists Hall, State and Jay streets. President, A. M. Franchois, 258 Broadway; recording secretary, D. Murphy, Hallet street; financial secretary, Jno. H. Cornick, 808 Grant avenue.

*No. 255, Ashland, Wis.—Meets first and third Tuesday of each month at Longshoremen's Hall, corner Ellis avenue, west and Front street. President, Chester Vrieland, Goeltz blk; recording secretary, Ernest Jacott, Franklin House; financial secretary, John E. Dunn, Judd blk.

*No. 256, Charleston, W. Va.—Financial secretary, B. F. Weaver, 403 Kanawha st., Charleston.

*No. 257, Jackson, Miss.—Meets every Thursday in Bricklayers' Hall, W. Jackson street. President, J. N. Olson; recording secretary, J. M. Grafton; financial secretary, J. Hall, W. U. Tel. Co.

†No. 258, Providence, R. I.—Meets every Friday night at Hanley Building, 63 Washington street. President, John V. Bowers, 53 Capron street, Providence, R. I.; recording secretary, Ed. Gonyea, 3 Gifford street, Providence, R. I.; financial secretary, John W. Fisher, 169 Bartlett avenue, Edgewood, R. I.

*No. 259, Salem, Mass.—Meets every Tuesday evening at I. O. O. F. Hall, Washington street. President, W. B. Jackson, 6 Bay street, Beverly; recording secretary, C. R. Hale, 408 Summer street, Lynn; financial secretary, F. A. Coker, 41 March street, Salem.

?No. 260, Fort Wayne, Ind.—Meets second and fourth Wednesday nights in each month in Hibernian Armory, 1022 Calhoun street. President, John T. Somers, 632 Hendricks street; recording and financial secretary, Leroy Zellers, 1420 Swinney ave.

†No. 261 Saratoga Springs, N. Y.—First and third Wednesday, Phythian Hall, 464½ Broadway. President, Ross Patterson, Imperial Hotel; recording secretary, W. H. Lavigne, 181 Clinton street; financial secretary, W. H. Owen, 42½ Carolinestreet.

*No. 262, Pullman, Ill.—Meets second and fourth Mondays at K. of P. Hall, Arcade Building. President, S. H. Dawney, 6525 Ellis avenue. Chicago; recording secretary, J. A. Larson, 8028 Coles avenue, South Chicago; financial secretary, M. J. Coleman, 4931 Indiana avenue.

*No. 263, Shamokin, Pa.—Meets Thursday evening at 7.30, Room 7, Sells Zimmerman Building, Independence street. President, Harry T. Morgan, corner Pine and Diamond streets; recording secretary, Rosser Samuels, 118 Poplar street; financial secretary, Ed. Roth, 248 South Wood street.

†No. 264, Pittsfield, Mass.—Meets second and fourth Friday of every month at Bartenders Hall, England Block. President, E. C. Ventis, Lennox, Mass.; recording secretary, J. K. Beardsley, 44 Hamlin street, Pittsfield, Mass.; financial secretary, C. C. Rowley, 240 Tyler street.

*No. 265, Lincoln, Neb.—Meets every Monday at A. O. U. W. Hall, 182 South Tenth street. President, Mark T. Caster, 2131 S street; recording secretary, John Sherman, 425 South Fourteenth street; financial secretary, George W. Neally, 428 South Thirteenth street.

*No. 266, Sedalia, Mo.—Meets every Thursday at Glass Hall, corner Third and Lamine streets. President, Milo J. Spahr, 312 W. Eleventh street; recording secretary, O. L. Gosnell, care of Missouri and Kansas Telephone Company; financial secretary, L. Elsemann, 705 East Fifteenth streets.

†No. 267, Schenectady, N. Y.—Meets first and third Saturday of each month at K. of C. Hall, over Gazette office. President, B. A. Cawley, 77 Second avenue; recording secretary, J. W. Andry, 534 Mumford street; financial secretary, J. G. Baringer, P. O. Box 184, Scotia, N. Y.

*No. 268, Newport, R. I.—First and third Fridays, at Central Labor Hall, Thames street. President, C. W. Holm, 14 Bliss Road; recording secretary, W. H. Mitchell, Daily Cottage, Dixon street; financial secretary, F. A. Bloom, 1 Harrison avenue.

*No. 269, Princeton, Ind.—Meets first and third Wednesday nights at I. B. of E. W. Hall, 106½ north Main street. President, Chas. F. Stevens; recording and financial secretary, L. S. Kell, 109 Prince street.

?No. 270, New York, N. Y.—Meets first and third Fridays and second and fourth Thursdays of each month, at 127 Park Row, New York City. President, G. Fairchild, Benson avenue and Bay. Twenty-second street, Bensonhurst, Brooklyn; recording secretary, G. W. Townsend, 981 Hancock street, Brooklyn; financial secretary, I. C. Grant, 304 W. 145th street.

*No. 271, Altoona, Pa.—First and third Monday, each month, Carpenter's Hall, Thirteenth street and Eleventh avenue. President, Chas. Downs, Howard avenue and Eleventh street; recording secretary, F. T. Kleffman, 1114 Twelfth street; financial secretary, Harry Stewart.

*No. 272, Sherman, Texas.—Meets first and third Tuesdays, at Odd Fellows' Hall Walnut and Houghton streets. President, Frank H. Wright, care of Grayson Tel. Co.; recording secretary, W. L. Porter, care of S. W. Tel. Co.; financial secretary, E. F. Jerger, 587 W. Locust street.

*No. 273, Clinton, Iowa.—Meets second and fourth Wednesdays, at Labor Temple, Fifth avenue. President, J. J. Davis, 202 South Second street; recording secretary, O. A. Prest, 425 Dewitt

street; financial secretary, C. C. Mathiesen, 629 Stockholm street.

*No. 274, **Marquette, Wis.**—Meets second and fourth Thursday at Trades Council Hall, Main street. President, E. A. Golden, 822 Wells street; recording secretary, Peter Edges, Armstrong street; financial secretary, F. E. McWayne, 1838 Stephenson street.

*No. 275, **Muskegon, Mich.**—Meets first and third Thursday at Trades and Labor Hall, Western avenue. President, Wm. Stines, 65 Sandford street; recording secretary, P. A. Peterson, 44 Jefferson street; financial secretary, C. B. Morey, 32 Miller avenue.

*No. 276, **West Superior, Wis.**—Meets first and third Tuesdays, at Union Hall, Hammond Block. President, W. W. Kielly, 916 Baxter avenue; recording secretary, J. R. Tillotson, 1620 Oaks avenue; financial secretary, P. C. Miller, 1901 Butler avenue.

*No. 277, **Kingston, N. Y.**—Meets first and third Thursday evenings at Recorder's Room, City Hall, Reilly street and Broadway. President, H. H. Buckbee, Lucas avenue; recording secretary, Roswell Coles, 76 Maiden Lane; financial secretary, H. Rumsey, 100 Downs street.

*No. 278, **Rock Island, Ill.**—Meets Turner Hall every Friday, Third avenue, between Fifteenth and Sixteenth streets, Rock Island, Ill. President, L. L. Corey, 2014 Iowa street, Davenport, Iowa; recording secretary, Will Newman, 512 Perry street, Davenport, Iowa; financial secretary, Jay C. Mead, 655 East Sixth street, Davenport, Iowa.

*No. 279, **Terre Haute, Ind.**—Meets second and fourth Mondays at Washington Hall, Eighty-first street and Wabash avenue. President, L. G. Murray, 104 N. Nineteenth street, Terre Haute, Ind.; recording secretary, Frank Wissel, 804 N. 13 $\frac{1}{2}$ street, Terre Haute, Ind.; financial secretary, L. R. Dickerson, 509 S. Thirteenth st.

*No. 280, **Hammond, Ind.**—Meets first and third Friday at K. of P. Hall, 247 State street. President, B. C. Mead, 247 State street; recording secretary, S. J. Carpenter, 186 Clinton street; financial secretary, C. R. Sherard.

*No. 281, **New Orleans, La.**—Meets first Friday of the month at McMahon's Hall, Callopo and Dryades. President, Chas. Kister, 2719 Philip street; recording secretary, P. Radlet, 1510 N. Robinson street; financial secretary, Geo. Lorr- ick, 6115 Laurel street.

*No. 282, **Chicago, Ill.**—Meets second and fourth Thursday at corner of 44th and Halstead streets. President, P. Sullivan, 3733 Wallace street; recording secretary, C. Coult, 3342 Archer ave.

*No. 283, **Oakland, Cal.**—Financial secretary, E. W. Davis, Vincent House, Seventh and Market streets.

*No. 284, **Rochester, N. Y.**—(Station men.)—Meets second and fourth Thursdays of each month, Snelder's Hall, 14 North Water street. President, George M. Lampman, 72 Glasgow street; recording secretary, W. J. K. Sutherland, 47 Elm street; financial secretary, James B. Coyle, 65 Davis street.

*No. 285, **Lynn, Mass.**—Financial secretary, H. Patten, 29 Hanover street.

*No. 286, **New Albany, Ind.**—Meets every Monday night at Cigar Makers' Hall, State and Market street. President, J. B. Firster, 1823 Rear Market; recording secretary, John Ulmer, 801 Pearl street; financial secretary, J. P. Elliott, 526 Culb avenue.

*No. 287, **Philadelphia, Pa.**—Meets every Wednesday in Electrical Workers Hall, Darien and Vine streets. President, Chas. H. Weir, 1922 Stanley street; recording secretary, Thos. Carroll, Palmyra, N. J.; financial secretary, Geo. Shaffer, 818 North Thirteenth street.

*No. 288, **Waterloo, Iowa.**—Meets first and third Thursday at Central Labor Hall, 215 $\frac{1}{2}$ E. Fourth street. President, W. J. Braydon, 1202 Bluff street; recording secretary, H. J. Miller, 409 W. Fourth; financial secretary, Brickley, Chas. P. O. Box 764.

*No. 289, **Santa Cruz, Cal.**—Meets every Tuesday evening at Labor Union Hall, Walnut ave. President, Don A. Loucks, Alta House; recording secretary, Frank E. Daubenbiss, R. F. D. No. 2, Box 555; financial secretary, J. E. Judd.

*No. 290, **Danville, Ill.**—Meets first and third Mondays at business agents office, 25 West Main street. President, Pearl Baum, 307 Oak street; recording secretary, Bert Smith, 214 E. Madison street; financial secretary, W. E. Crosley, 12 E. North street.

*No. 291, **Boise City, Idaho.**—Meets every Friday evening at Labor Hall, Banack street, between Eighth and Ninth streets. President, W. W. Moore, Thirteenth and Eastman streets; recording secretary, James D. McCune, Pacific Hotel; financial secretary, T. H. Martin, P. O. Box 525.

*No. 292, **Minneapolis, Minn.**—Meets second and fourth Tuesdays at Union Temple, No. 3. President, P. W. Hall; recording secretary, T. F. Brady; financial secretary, H. M. Crawshaw, 2027 Willow avenue.

*No. 293, **North Adams, Mass.**—Meets every second Sunday at 11 a. m., at Sullivan Block, Main street. President, Fred. W. Pinkham, Holden street; recording secretary, Arthur A. Isbell, 80 Porter street; financial secretary, Edward S. Boylan, 18 School street.

*No. 294, **Aluncle, Ind.**—Meets first and third Wednesdays of each month at Union Labor Hall, 8d floor, corner Walnut and Main streets. President, Clyde Zecke, Box 676; recording secretary, Orvil Overcrash; financial secretary, Ralph Garst, 403 Wheeling avenue.

*No. 295, **Natchez, Miss.**—President, L. T. Moore; financial secretary, C. R. Foreman, 209 South Broadway.

*No. 296, **Poughkeepsie, N. Y.**—Meets first and third Monday evening each month, at 405 Main street. President, Jno. McAbee, 9 Cannon street; recording secretary, Fred Wiggins, 35 Market street; financial secretary, Jacob Ostram, 37 South Bridge street.

*No. 297, **Piqua, Ohio.**—Meets second and fourth Thursdays at Plock's Hall, 114 South Main street. President, J. G. Ballard, Tippecanoe City, Ohio; recording secretary, C. M. Reed, 617 River street, Piqua, Ohio; financial secretary, J. H. Parlette, No. 8 West street, Troy, Ohio.

*No. 298, **Findlay, Ohio.**—President, George Hildebrand, 605 Cherry street; recording and financial secretary, Clair Diffenderfer, Findlay Home Tel. Co.

*No. 299, **Camden, N. J.**—Meets every Thursday at Daley's Hall, Northwest corner Seventh and Birch streets. President, William Fullerton, East Side; recording secretary, Peter T. Ward, 619 Cedar street; financial secretary, H. B. Fraser, 814 Linden street.

*No. 300, **Auburn, N. Y.**—Meets every Thursday, at C. M. B. A. Hall, Franklin street. President, A. Long, 123 $\frac{1}{2}$ Fulton street; recording secretary, Harry Riecher, Hoffman street; financial secretary, A. Long, 123 $\frac{1}{2}$ Fulton street.

*No. 301, **Texarkana, Ark.**—Meets every Wednesday at Union Labor Hall, 216 Pine street. President, W. F. Robinson, 214 Walnut street; recording secretary, George E. Russell, 226 State Line; financial secretary, J. F. French, 226 State Line.

*No. 302, **Peoria, Ill.**—Meets First and third Tuesdays of each month at Carpenters Hall, 218 Main street. President, John Hoffman, 102 Windom street; recording secretary, H. C. Lupton, 404 Cooper street; financial secretary, Anthony Bickerdt, 320 $\frac{1}{2}$ Bryon St.

*No. 303, **Lincoln, Ill.**—Meets first and third Wednesday of each month at Painters' Hall, East Pulaski street. President, F. E. Taylor, 330 Third street; recording secretary, E. S. Ransdell, 317 South Kickapoo street; financial secretary, C. E. Chowning, 302 Delavan street.

*No. 304, **New Haven, Conn.**—Meets first and third Tuesday at Union Hall, 99 Orange street. President, W. R. Johnson, 773 Whitney avenue; recording secretary, W. M. Dutton, 542 Chapel street; financial secretary, T. H. Schmolck, 88 Franklin street.

*No. 305, **Fort Wayne, Ind.**—Financial secretary, A. H. Meyer, 69 Elizabeth st.

*No. 306, **Albuquerque, New Mex.**—Meets second and fourth Fridays of each month at Central Labor Union Hall. President, M. Nash, Albuquerque; recording secretary, M. N. Sweet, Albuquerque; financial secretary, E. R. Hotelling, 110 Gold avenue.

*No. 307, Cumberland, Md.—Meets first and third Saturday, K. of P. Hall, 39 Baltimore street. President, J. H. Reid, 29 Frederick street; recording secretary, Michael Gill, Tremont Hotel; financial secretary, R. Snyder, 17 Harrison street.

†No. 308, Beaumont, Tex.—Meets every Tuesday night, 284 Pearl street, opposite post office; President, E. T. Simmonds, 915 Forsythe street; recording secretary, L. Cook, 812 Magnolia avenue; financial secretary, W. G. Miller, 284 Pearl street.

†No. 309, East St. Louis, Ill.—Meets every Tuesday evening at Bartenders' Hall, Fourth street, near Broadway. President, Charles Bennett, State and Sixteenth streets; recording secretary, C. Arnold, 22 North Main street, E. St. Louis, Ill.; financial secretary, R. Hartske, 2752 Lafayette ave.

*No. 310, Stamford, Conn.—Meets first Monday of each month, Wm. T. Minor Post, G. A. R. Hall, 442 Main street. President, Goodrich E. Risley, 192 Atlantic street; recording secretary, John J. Farrell, Glenbrook; financial secretary, Norman R. Wilcox, 109 Stillwater avenue.

*No. 311, Beloit, Wis.—Meets second and fourth Thursday at Trades Council Hall, West Grand avenue and Third street. President, Geo. Jones, R. No. 27; recording secretary, S. E. Bartlett, 422 State street; Thos. Heffernan, 122 W. Merrill street.

*No. 312, Rome, Ga.—President, R. L. Maxwell; financial secretary, R. W. Callaway, 313½ Broad street.

†No. 313, Wilmington, Del.—Meets first and third Friday at N. E. corner of 8th and Orange. President, David Gray, N. E. corner Thirteenth and Tatnall street; recording secretary, Geo. N. Senior, 313 Tatnall street; financial secretary, Geo. T. Lyon, 422 E. Fifth street.

*No. 314, Tyler, Texas.—Meets second and fourth Wednesdays at Trades Council Hall, South side Square. President, F. E. L. Ivey, care of Bell Telephone Co.; recording secretary, W. B. Roberts, 501 West Houston street; financial secretary, W. B. Roberts, 501 West Houston street.

*No. 315, Baton Rouge, La.—President J. H. Hawkins; financial secretary, H. A. Selser, 1011 Africa street.

*No. 316, Ogden, Utah.—Meets every Saturday, night at Union Labor Hall, 284 Twenty-fourth street. President, W. R. Jackson, Lock Box 44; recording secretary H. B. Hill, Lock Box 44; financial secretary, Geo. M. Stoddard, Lock Box 44.

*No. 317, Hopkinsville, Ky.—President, Pat Cenby; financial secretary, George McDonald.

†No. 318, Knoxville, Tenn.—Meets first and third Saturday, at Independent Hall, corner Gay and Cumberland sts. President, W. J. Radcliffe; recording secretary, J. O. Shelley, 305 Scott ave.; financial secretary, F. P. O'Connor, 605 W. Vine ave.

†No. 319, Pittsburg, Pa.—Meets first and third Mondays at K. of L. No. 3 Hall, 535 Smithfield street. President, George Plenau, Gray street, Mt. Wash. Pittsburg, Pa.; recording secretary, Wm. G. Comrie, 5815 Holden street, East End; financial secretary, Wm. A. Kelly, 86 Oakland square.

*No. 320, Paris, Tex.—Meets every Wednesday at N. Main street, over Wray's saloon. President, D. A. Jones, 515 Bonham street; recording secretary, Edwin Burke, Box 238; financial secretary, W. N. Banta, 735 N. Main street.

*No. 321, La Salle, Ill.—Meets first and third Saturdays at Reed & O'Neill's Hall, 845 First street. President, Thomas Heffron, La Salle, Ill.; recording secretary, Noxie Dusch, 227 Bucklin street; financial secretary, Jos. B. Skovare, 328 Second street.

*No. 322, Kokomo, Ind.—Meets every Wednesday, Buckeye, south of Sycamore street. President, Ed. Vaughn, 272 S. Buckeye street; recording and financial secretary, C. E. Jolliffe, 150 South Main street.

*No. 323, Fairmont, W. Va.—Meets Saturday nights at Musgrave Hall, Monroe street. President, H. S. Upton, general delivery; recording secretary, T. N. Bennet, Fairmont general de-

livery; financial secretary, George E. Allard, Box 607, Fairmont, W. Va.

*No. 324, Brazil, Ind.—Meets alternate Tuesday nights at United Mine Workers' Hall, Main and Walnut streets (Opera Block). President, Harry Reed, 12 W. Maple street; recording secretary, Birt Staats, 203 South Lambert street; financial secretary, L. M. Moore, 203 South Lambert street.

*No. 325, Binghamton, N. Y.—Meets every Friday, 8 p. m. at C. L. U. Hall, 79 State street. President, F. K. Spencer, 18 New street; recording secretary, R. P. Noble, 18 New street; financial secretary, W. J. Bidwell, 120 Washington St.

*No. 326, Connellsville Pa.—Meets second and fourth Tuesdays at Rutsek's Hall, cor. Main and Arch Streets. President, Alex. Angus, Smith's Hotel; recording secretary, Frank Buttermore, New Haven, Pa.; financial secretary, Paul McDonald, 284 E. Apple street.

*No. 327, West Palm Beach, Fla.—Meets first and third Mondays at Central Labor Hall, Clematis avenue. President, E. W. J. Parrish; recording secretary, Stephen L. Harman, 212 Palm Beach; financial secretary, J. E. Chambers.

*No. 328, Oswego N. Y.—Meets every second Wednesday evening, Trades and Labor Hall, West 1st between Bridge and Onelda street. President, John Goodwin, 318 Walnut street; recording secretary, J. J. Glynn, 69 East Cayuga street; financial secretary, Frank Gallagher, 79 East Eighth street.

*No. 329, Shelbyville, Ind.—Meets every Friday night at Union Labor Hall, Public Square. President, Alfred C. Lee, 26 Second street; recording secretary, Frank Shewmon, West Jackson st.; financial secretary, A. C. Lee, 26 Second street.

†No. 330, Kansas City, Mo.—Meets every other Wednesday at Electrical Workers Hall, 1333 Grand ave. President, Henry Hollingbarger, 1710 Grand ave; recording secretary, Earl C. Zoll, 318 East Seventeenth street; financial secretary, G. V. Tudhope, Missouri and Kansas Tel.

*No. 331, Long Branch, N. J.—Meets first and third Monday each month at Phil Daly's Hose Company's Hall, Second avenue. President, E. J. Dougherty, 174 Union ave.; recording secretary, John A. Brokaw, 81 Washington street; financial secretary, Jno. Coles, Jr., Box 127, Station B, Long Branch, N. J.

*No. 332, Sault Ste Marie, Mich.—Meets Tuesday night, at La Lond Block, Ashmun streets. President, D. Howey, 821 Lizzie street; recording secretary, P. E. Sheeley; financial secretary, Ben Balabridge, 807 John street.

*No. 333, Emporia, Kans.—Meets every Tuesday night at 323½ Commercial street. President, E. McKinsey, 101 So. West street; recording secretary, W. M. Johnson, 709 Merchant street; financial secretary, W. C. Prince, 210 So. Merchant street.

*No. 334, Bellingham, Wash.—Meets second and fourth Fridays at Eagles Hall cor. Elv. and Magnolia streets. President, W. S. Quinby, Station A Bellingham; financial and recording secretary, H. H. Horton, 1114 Ellis street, Bellingham.

*No. 335, Springfield, Mo.—Meets Wednesday, Odd Fellows Hall, 302 Boonville street. President, G. H. Robinson, 604 South street; recording secretary, R. T. Brennan, 433 S. Main street; financial secretary, C. A. Hoag, 953 S. Jefferson street.

*No. 336, Oskaloosa, Iowa.—Meets first and third Tuesdays, at Engineer's Hall, West High avenue. President, Jas. Poling, Oskaloosa; recording secretary, John Teas, Oskaloosa; financial secretary, G. W. Gordon, 207 E. Third avenue.

*No. 337, Parsons, Kans.

*No. 338, Denison, Tex.—Meets every first and third Thursdays at Labor Hall, 202½ W. Main street. President, Jack Cleveland, care of G. Co. Tel. Co.; recording and financial secretary, J. W. Acres, 101 East Day street.

*No. 339, Sterling, Ill.—Meets first and third Wednesday at Labor Hall, 308 Locust street. President, Geo. Thomas, Sterling, Ill.; recording secretary, John Powers, 105 Twelfth avenue; financial secretary, R. L. Fairbrother, 1011 First avenue, Sterling, Ill.

† No. 340, Sacramento, Cal.—Meets first and third Mondays at Pythian Castle, corner Ninth and I streets. President, C. W. Beaton, 1820 I street; recording secretary, Geo. H. Curtis, 1818½ Sixteenth street; financial secretary, E. G. Fletcher, Pythian Castle.

*No. 341, Ottawa, Ill.—Meets second and fourth Wednesdays of each month, at Gebhardt's Hall, 630 West Madison street. President, Wm. L. Spore, 119 W. Washington street; recording secretary, J. H. Brown, 1225 Phelps street; financial secretary, T. A. Stone, Cen. Union Tel. Co.

*No. 342, New Brighton, Pa.—Meets first and third Thursdays, E. J. Ryan's Hall, corner Third avenue and Ninth street. President, Geo. J. Wolf, 1709 Fourth avenue, Beaver Falls, Pa.; recording secretary, Chas. Cook, 621 Eighth street, Beaver Falls, Pa.; financial secretary, J. L. Allwine, 654 Case street, Rochester, Pa.

*No. 343, Norwich, Conn.—Meets second and fourth Wednesdays at Carpenters' Hall, Shetucket street. President, R. M. Kittson, Woodmansee avenue; recording secretary, Walter Holden, 150 Main street; financial secretary, W. H. Hall, 87 Cliff street.

*No. 344, New London, Conn.—Meets first and third Friday at Bacon Block, State street. President, W. H. Vibber, 24 Mountain avenue; recording secretary, C. C. Comstock, 5 Franklin street; financial secretary, John S. Loveless, 11 Berkley avenue.

*No. 345, Mobile, Ala.—Meets second and fourth Mondays at I. O. O. F. Hall, corner of St. Joseph and St. Michael streets. President, J. W. Scouyers, 804 Elmira street; recording secretary, C. L. Singler, care of Electric Light Co., Royal and St. Louis streets; financial secretary, W. E. Prewitt, 810 Charleston street.

*No. 346, Fort Smith, Ark.—Meets first and third Tuesday at K. of P. Hall, over 708 Gar. avenue. President, C. P. Rowe, S. D. and Twelfth street; recording secretary J. P. Hamilton, 305 South Tenth street; financial secretary, W. H. McDonald, 710 South Eleventh and H streets.

*No. 347, Peru, Ind.—Meets first and third Friday at Teamster's Hall, Petty Block. President, Frank Seamon, 72 E. Fifth street; recording secretary, Elmer Burlingame, 217 E. Fifth street; financial secretary, S. C. La Boyteant, 59 W. Third street.

*No. 348, Greenville, Tex.—Meets second and fourth Thursday at Labor Hall, 278 West Lee street. President, C. A. Duck, 216 N. Stonewall street; recording secretary, W. Brame; financial secretary, C. M. Christopher.

*No. 349, Miami, Fla.—President, W. D. Avery, Miami, Fla.; financial secretary, R. D. Taylor, 805 Third street.

*No. 350, Hannibal, Mo.—Meets second and fourth Monday at Bartenders Hall, corner of Main and Broadway. President, Lawson Steadman, 306 North Third street; recording secretary, Geo. M. Jackson, 220 Rock street; financial secretary, Harry Janes, 211 Center street.

*No. 351, Meriden, Conn.—Meets first and third Wednesday each month, at Turners' Hall, Pratt street. President, John J. Buckley, 29 Pratt street, Meriden, Conn.; recording secretary, Charles Bellows, 16 Bristol street, Wallingford, Conn.; financial secretary, A. E. Cooke, Crown street, Meriden, Conn.

*No. 352, Lansing, Mich.—Meets second and fourth Tuesday at Labor Hall, Washington avenue, north. President, Bert Evans, 794 Shaw street, west; financial secretary, J. D. Mosher, 535 Larch, north; recording secretary, C. Edington, 111 Short street.

†No. 353, Toronto, Can.—Meets first and third Mondays, at Occident Hall, cor. Queen and Bathurst streets. President, D. Mathieson, 82 Mansfield avenue; recording secretary, J. Fyfe, 82 Mansfield avenue; financial secretary, Jno. Ferguson, 275 Lansdowne avenue.

†No. 354, Salt Lake City, Utah.—Meets every Thursday at Federation of Labor Hall, corner South and State streets. President, W. H. Meldrum, P. O. Box 207; recording secretary, O. K. Sandberg, 217 Oak street; financial secretary, W. F. Showells, P. O. Box 218.

*No. 355, Pittsburg, Pa.—Meets second and fourth Thursday at First National Bank Building,

Wilkinsburg, Pa. President, W. J. Wigington, 211 Ninth avenue, Homestead; recording secretary, W. G. McGettigan, East Pittsburg; financial secretary, Geo. M. Smith, P. O. Box, 217, East Pittsburg.

†No. 356, Kansas City, Mo.—Meets every Monday, in Electrical Workers' Hall, 1333 Grand avenue. President, Sam H. Hawkins, 1833 Grand avenue; recording secretary, F. J. Schadel, 1333 Grand avenue; financial secretary, C. F. Drolinger, 1333 Grand ave.

*No. 357, Pittston, Pa.—Meets first Thursday on or after the 15th at Advocate Office, Butler Block. President, John Sheridan, 17 High street, Pittston; recording secretary, P. F. Toole, Union street, Pittston; financial secretary, George Judge, Clark Lane, Pittston.

*No. 358, Perth Amboy, N. J.—Meets first and third Thursdays at Carpenters' Union Hall Stricker's Building, 138 Smith street. President, V. Christofferson, 137 Fayette street; recording secretary, Geo. Skirm, 161 Washington street; financial secretary, Ambrose Mather, 44 East venue.

*No. 359, Iron Mountain, Mich.—Meets first Thursday, Spencer Hall, 122 W. B street. President, Quirin Stephany, 108 E. Ludington street; recording secretary, E. W. Mason, 219 E. A street; financial secretary, Conrad Carlson, 1120 River avenue.

*No. 360, Sioux Fall, S. D.—Meets second and fourth Wednesday at Labor Hall, Syndicate Block. President, M. G. Lacy; recording secretary, Wm. Waples; financial secretary, C. Height, 108 Cliff street.

*No. 361, Lawrence, Kans.—President, Joseph Badsky, 501 Alabama street; recording secretary, Jas. Hart, West Elliot street.

*No. 362, Kankakee, Ill.—Meets every Monday at Painters' Hall, E. Court street. President, F. E. Jeffers, Hospital, Illinois; recording secretary, Neal Madigan, 159 W. Court street; financial secretary, A. E. Davids, 159 W. Court street.

*No. 363, Montgomery, Ala.—Meets at Labor Hall, Corner Perry and Washington streets. President, W. S. Bivins, 2118 Columbus street; recording secretary, Jas. E. Brady, 112 N. Hull street; financial secretary, C. M. Thompson, Mutual Light and Power Co.

*No. 364, Guthrie, Okla.—Meets first and third Tuesdays at Armory Hall, 109 West Harrison avenue. President, Art Carpenter; recording secretary, W. F. C. Perry; financial secretary, A. H. Harmon, 324 Springer street.

*No. 365, Fulton, Mo.—Financial secretary, Herman Glahn, Fulton.

*No. 366, Allentown Pa.—Meets first and third Sundays every month, Nagles Hall, corner 7th and Turner sts. President, J. S. Hoffman, 1315 Court st.; recording secretary, John F. Gaffey, 183 Tilgham street; financial secretary, Charles Hoffman, 1315 Court street.

†No. 367, St. Louis, Mo.—Meets first and third Sundays, 2.20 p. m. President, C. A. Hose, 1927 Florissant avenue, St. Louis, Mo.; recording secretary, Nelson Bolan, Granite City, Ill.; financial secretary, G. E. Sutter, 4603 Cook ave.

†No. 368, New York, N. Y.—Meets second and fourth Wednesday, Union Hall, 1591 Second avenue. President, Thomas C. Yoe, 2558 Eighth avenue; recording secretary, Jas. Wellington, 302 W. 129th street; financial secretary, J. J. McCarty, 202 E. 96th Street.

†No. 369, Louisville, Ky.—Meets first and third Fridays of each month at Beck's Hall, Jefferson street, between First and Second. President, L. Rosenfield, R. F. D. No. 2, Sta. E.; recording secretary, J. A. Magness, 2231 Brook street; financial secretary, Dave Butterfield, 1767 Wilson avenue.

†No. 370, Los Angeles, Cal.—Meets every Saturday at Council of Labor Hall, No. 3, 438½ South Spring street. President, C. R. Holmes, 714 Tehama street; recording secretary, C. E. Gough, 634 S. Grand; financial secretary, Hal Hamner, 819 West Avenue Fifty-one.

*No. 371, Redding, Cal.—Meets first and third Tuesdays at Horn's hall, 516 California street. President, John T. Reed, Golden Eagle Hotel; recording secretary, J. C. Powell, Temple Hotel; financial secretary, D. W. Rathburn, 828 Gold st.

*No. 372, Boone, Iowa.—Meets first and third Fridays at North Side Union hall, 917 Tenth street. President, H. C. Elliott, 515 Tenth street; recording and financial secretary, A. J. Berl, 1556 Fifth street.

*No. 373, Oneida, N. Y.—Meets second and fourth Monday of every month at Trades Assembly Hall, 20 James street. President, F. W. Brickley; recording and financial secretary, W. H. Percival, 14 Prospect street.

*No. 374, Escanaba, Mich.—Meets every first and third Friday evening at Lemmer's Hall, 310 Ludington street. President, J. H. Harkins, 516 Wells avenue; recording and financial secretary, W. G. Compton, 308 Wolcott street.

*No. 375, Jefferson City, Mo.—Meets second and fourth Sundays in each month at K. of P. Hall, corner High and Madison streets. President, M. P. Gaddis; recording and financial secretary, Geo. W. Fleming, 418 E. McCarty St.

*No. 376, Chicago, Ill.—Meets second and fourth Tuesday in each month at Electrical Headquarters, 196 Washington street. President, A. J. Mielke, 196 E. Washington street; recording secretary, Jno. Luebke, 196 Washington street; financial secretary, Thos. Queenan, 196 Washington street.

*No. 377, Lynn, Mass.—President D. Duval, 31 Whittier street; recording secretary, L. A. Wentworth, 34 Leyman street; financial secretary, H. F. Bullock, 31 Whittier street.

*No. 378, Sheffield, Ala.—President, F. C. Brumbach; recording secretary, R. K. Anderson; financial secretary, C. L. Nielely.

*No. 379, Greensburg, Pa.—Meets first and third Thursday of each month, at Glunts Hall, corner East Pittsburg street and Maple avenue. President, C. M. Morgan, West Pittsburg street; recording secretary, M. McLaughlin, 219 Main street; financial secretary, H. E. Peters.

*No. 380, Salt Lake City, Utah.
*No. 381, Chicago, Ill.—Meets second and fourth Tuesdays in month at Adam Koch's Hall, 104 E. Randolph street. President, C. M. Hall, 185 Indiana street; recording secretary, E. N. Nockels, 56 Fifth avenue, room 518; financial secretary, O. A. Law-on, 449 Cornelia street.

*No. 382, Columbia, S. C.—Meets Wednesday night, at Independence Hall, over Independent Engine House, between Main and Assembly streets. President, F. D. Cooper, Southern Bell Tel. Co.; recording secretary, J. W. Blease, Wm. Perry Electrical Co.; financial secretary, W. J. Jones, South Carolina Glass Works.

*No. 383, Mattoon, Ill.—President, Harry Schock; recording secretary, Ned Malsaine; financial secretary, L. Morganstein, Fire Department.

*No. 384, Sydney, Nova Scotia.—Meets every second Wednesday of each month at C. M. B. A. Hall, George street, Sydney, C. B. President, S. C. De Witt, Sydney, N. S.; recording secretary, Oscar L. Boyd, P. O. Box 415; financial secretary, J. P. Gallant, P. O. Box 415.

*No. 385, Lawrence, Mass.—Meets first and third Mondays at Bugbee Hall. President, R. H. Morris, 167 Prospect street; recording secretary, T. H. Hogarth, 88 Andover street; financial secretary, J. J. McCrillas, 259 South Broadway.

*No. 386, New Iberia, La.—Meets third Saturday of each month, Corinne and Main streets. President, George Fay; recording secretary, E. R. Chivers; financial sec'y, W. A. Broussard.

*No. 387, Freeport, Ill.—Meets every first and third Wednesday at Stephenson street. President, C. L. Gulon, 95 Cottonwood street; recording secretary, Chas. Kuntz, 58 Ottawa street; financial secretary, Jas. B. Gaffney, 237 Douglas avenue.

*No. 388, Palestine, Tex.—Meets first Tuesday of each month at Power House Hall Avenue A. President, S. B. Taylor, Reagan street; recording secretary, Z. A. McReynolds, in care Light Co.; financial secretary, D. E. Bostick, P. O. Box 834.

*No. 389, Paterson, N. J.—Meets every first and third Tuesday, in Columbia Hall, 462 Main street. President, F. H. Holmes, Lodi, N. J.; recording secretary, Charles Walton, 57 Twenty-third avenue; financial secretary, Geo Twigger, 330 Market street.

*No. 390, Johnstown, Pa.—Meets every Wednesday night at United Workmen's Hall, Main street. President, W. O. Draucher, Cook Hotel; recording secretary, M. L. Lower, 245 Llewellyn street; financial secretary, Harry F. Davis, Conemaugh, Pa.

*No. 391, Meridian, Miss.—Meets every Tuesday night at Painters Hall, Second street between 22nd and 23rd avenues. President, W. F. Johnson, P. O. Box 70; recording secretary, H. F. Harwell; Thirty-eighth avenue between Ninth and Tenth streets; financial secretary, Fred Keeton, Nineteenth avenue and Twelfth street.

*No. 392, Troy, N. Y.—Meets every Thursday night in Red Men's Hall, First and Congress streets. President, J. W. Lindsey, Lynd House; recording secretary, J. Seymour Scott, 18 Ingalls ave.; financial secretary, Robert Grant, 165 First street.

*No. 393, Detroit, Mich.—Meets second and fourth Friday, in Johnson's Union Headquarters, corner Monroe avenue and Farrar street. President, George A. Dunkers, 478 Elmwood avenue; recording secretary, Sydney A. Smith, 368 Cass avenue; financial secretary, C. W. Guinness, 505 Trumbull avenue.

*No. 394, Auburn, N. Y.—Meets first and third Wednesdays at Mantel Hall, Water street. President, Thomas H. Mohan, 1 School street; recording secretary, R. C. Leek, 155 Clark street; financial secretary, D. Ehle, 84 Genesee street.

*No. 395, Kalamazoo, Mich.—Meets first and third Monday of each month, Trades and Labor Hall, South Burdick street. President, Geo. C. Milham, 722 Stockbridge ave.; recording secretary, Burton A. Whipple, 322 E. Lovell street; financial secretary, Morris W. Doyle, 426 Woodland avenue.

*No. 396, Boston, Mass.—Meets second Wednesday, at Seaver Hall, Paine's Mem. Building, Appleton street. President, W. W. Emmons, 125 Milk street (basement); recording secretary, D. R. McGregor, 241 Minot street, Dorchester, Mass.; financial secretary, A. R. Young, 709 Broadway, Chelsea, Mass.

*No. 397, Quebec, Canada. Meets first and third Monday at Moisans Hall, St. Helene and St. Anselme. President, E. L. Heureux, 394 St. Valler street; recording secretary, N. Mathurin 238 St. Valler street; financial secretary, A. Bouret, 18 Levis street.

*No. 398, St. Cloud, Minn.—Meets every second and fourth Tuesday at A. O. U. W. Hall, corner Fifth avenue and First street, south. President, Gottlieb Gebrenback, Twelfth avenue N.; recording secretary, Harry Hamlin, Sauk Rapids, Minn.; financial secretary, F. B. Doten, 618 Sixth avenue, south.

*No. 399, Portland, Me.—Meets every Tuesday at Farrington Block, Congress street. President, F. E. Sargent, 308 Portland street; recording secretary, Edward Tenney, 22 Paris street; financial secretary, A. G. Moody, 86 Lancaster street.

*No. 400, Ottawa, Ontario.—Meets second and fourth Wednesdays at Murphy's Hall, Sussex street. President, M. F. Mead, 34 Murray street; recording secretary, C. G. Keyes, 467 Rideau street; financial secretary, A. Seguin, 80 Water street.

*No. 401, Burlington, Iowa.—Meets every Monday evening at Carpenters Hall, Third and Jefferson street. President, L. R. Sherrill, 104 N. Main street; recording secretary, W. F. Moore, 918 S. Third street; financial secretary, W. F. Moore, 918 S. Third street.

*No. 402, Portchester, N. Y.—Meets every first and third Monday nights at 8 each month, at Washington Hall, 115 North Main street. President, Andrew Bell, 26 Haseco avenue; recording secretary, Daniel B. Purdy; P. O. Box 240, Port Chester, N. Y.; financial secretary, J. C. Irving, Greenwich, Conn.

*No. 403, Meadville, Pa.—Meets every second and fourth Wednesdays at Central Labor Union Hall, Water street and Mead avenue. President, Fred A. Berg, 732 Liberty street; recording secretary, Chas. A. Cummings, Park avenue; financial secretary, A. R. Simpson, Phoenix Hotel.

No. 404, Denver, Colo.—(Winders)—Meets every Tuesday at 512 Charles Building. President, W. C. Metzgar, 115 West Bayard street; recording secretary, A. W. Gay, 1245 Clarkson street; financial secretary, Jack H. Cook, Hotel Midland.

***No. 405, Houghton, Mich.**—Meets first and third Thursday of each month at Union Hall, Sheldon street. President, John Crawford. Houghton; recording secretary, W. M. Bates, Houghton; financial secretary, E. J. Poirier.

***No. 406, Ardmore, Ind. Ter.**—Meets Friday of each week at Union Hall, West Main street. President, E. M. Parker; recording secretary, John A. Ball; financial secretary, A. A. Holcomb, P. O. Box 346.

***No. 407, Marquette, Mich.**—Meets every second and fourth Saturday of each month at Siegel's Hall, N. Third streets. President, O. H. Siewert, 389 West Alger street; recording secretary, C. A. Ellstrom, 321 West Bluff street; financial secretary, G. H. Kemper, 511 West Ridge street.

***No. 408, Missoula, Mont.**—Meets every second and fourth Tuesday at Fireman's Hall, West Main street. President, J. B. Ashley, Missoula, Mont.; recording and financial secretary, C. H. Christensen, 805 East Front street.

***No. 409, Ithaca, N. Y.**—Meets first and third Saturday of every month at Central Labor Union Hall, East State street. President, A. E. Day; recording secretary, H. W. Barnard, 202 South Cayuga street; financial secretary, O. Rittenhouse, 505 South Albany street.

***No. 410, Fitchburg, Mass.**—Meets second and fourth Friday at C. L. U. Hall, 5 Main street. President, Daniel McDonald, 6½ Congress street; recording secretary, R. W. Larrabee, 374 Main street; financial secretary, D. L. Toomly, 17 Blossom street.

***No. 411, Warren, O.**—Meets first and third Wednesdays at Labor Hall, Main street. President, S. F. Messer, 318 North Tod avenue; recording secretary, C. C. Mason, 504 South Pine street; financial secretary, Geo. L. Hardy, Niles, Ohio.

***No. 412, Mankato, Minn.**—Meets first and third Thursdays of each month at Williams' Hall, corner Front and Hickory streets. President, W. C. Sesilio, 429 Belgrade avenue; recording secretary, Chas. Brandon, 114 S. Fourth street; financial secretary, R. A. Anderson, box 140.

***No. 413, Manila, P. I.**—Meets first and third Mondays of each month at Levy's Hall, Calle Exchange 59. President, Frank Moffett, 144 Manila; recording secretary, R. R. Landon, General Delivery; financial secretary, Charles A. Schoendube, 144 Manila.

***No. 414, Norwalk, Ohio.**—Meets second and fourth Wednesdays at Central Labor Union Hall, Whittlesay avenue and Monroe street. President, Ralph Farley; recording secretary, Harry Stoughton; financial secretary, Adelbert Graham.

***No. 415, Cheyenne, Wyo.**—Meets every first and third Mondays, K. P. Hall, West 17 street. President, F. P. Edlind, cor. Twenty-first and Van Lennan; recording secretary, Arthur Noe; financial secretary, B. M. Vance, box 530.

***No. 416, St. Joseph, Mo.**—Meets every Thursday at N. E. corner Seventh and Fexil streets, Secret Service room, second floor. President, W. H. Winters, 607 S. Third street; recording secretary, H. F. Howard, 619 S. Tenth street; financial secretary, J. A. Wells, 113 E. Isabell street.

***No. 417, Newburgh, N. Y.**—Meets every second and fourth Saturday at Labor Hall, Ann street, between Johnson and Liberty. President, John Gilroy Mezger, 1 High street; recording secretary, Raymond Hathaway Williams, 215 First street; financial secretary, Thomas Perrott, 32 Smith street.

***No. 418, Mt. Vernon, Ind.**—Meets second and fourth Monday nights at Franks Place, Main street. President, Geo. B. Duncan; recording and financial secretary, Oscar H. Brinkman, Box 405.

***No. 419, Jacksonville, Ill.**—President, P. Traub; recording secretary, J. A. Lemington, 1018 N. Church street; financial secretary, O. Sorrelas.

***No. 420, Moberly, Mo.**—Meets second and Fourth Tuesday night of each month at Lincoln

G. A. H., Reed street. President, Riley Patterson, Moberly, Mo., care of Richmond Hotel; recording secretary, E. J. Hayes, 629 Culp street, Moberly, Mo.

***No. 421, Watertown, N. Y.**—President, N. W. Pillan; recording and financial secretary Geo. Dickerson, 57 A Arsenal street.

***No. 422, Hackensack, N. J.**—Meets second and fourth Tuesdays of each month, Armory Hall, corner of State and Mercer. President, D. T. Evans; recording secretary, Bert M. Pratt, 52 Main street; financial secretary, Walter Kingsley, Kansas street.

***No. 423, Montreal, P. Q.**—Meets First and Third Friday each month, at Arcanum Hall, 2444 St. Catherine street. President, L. R. McDonald, 2 Brunswick street; recording secretary, T. W. Rothery, 81½ Latour street; financial secretary, F. W. Cotten, 534 Antoine street.

***No. 424, Milwaukee, Wis.**—Meets every Wednesday, 8 p. m., at Pascheu's Hall, 323 Chestnut street. President, Wm. McFadden, National Home; recording secretary, Jas. W. Daley, 496 Twenty-seventh street; financial secretary, J. V. Field, 459 Sixth avenue.

***No. 425, Wilmington, Del.**—Meets second and fourth Fridays at corner Eighth and Orange streets. President, E. B. Ferrel, 802 West Sixth street; recording secretary, H. Mason, 8 Riddle avenue; financial secretary, R. S. Hertzog, 1112 King street.

***No. 426, Milwaukee, Wis.**—Meets every second and Fourth Fridays of each month at Harmony Hall, corner First avenue and Mineral street. President, Jos. Kain, 468 Clinton street; recording secretary, Frank Zimney, 964 Eighth avenue; financial secretary, Charles Nauertz, 648 Madison street, rear.

***No. 427, Springfield, Ill.**—Meets first and third Wednesday, at Electrical Workers' Hall, 210½ S. Fifth street. President, J. D. Valentine, 411 W. Canedy street; recording secretary, A. H. Barth, 615 E. Jackson street; financial secretary, R. W. Berry, 916 E. Edwards street.

***No. 428, Bakersfield, Cal.**—Meets every first and third Tuesday of each month at 1803 Chester avenue. President, Wm. H. Murray; recording secretary, C. T. Collins; financial secretary, J. E. Baker, 904 19th street.

***No. 429, Columbus, Ga.**—President, G. W. Schultz, Automatic Tel. Company; recording secretary, S. B. Montgomery, Southern Bell Tel. Company; financial secretary, Frank Hudson, Southern Bell Tel. Company.

***No. 430, Racine, Wis.**—Meets second and fourth Saturday of the month, at 8 p. m., at Trades Labor Hall, Fourth and Main streets. President, J. P. Brown, 1521 State street; recording secretary, Fred M. Brooker; P. O. Box 247; D. A. Howard, 1917 N. Chatham street.

***No. 431, Frederick, Md.**—Meets every first and second Saturday in the month at Farmer Hall at West Patrick street. President, H. H. Barnes; financial secretary, S. F. Gardner, 187 South Market street.

***No. 432, Eau Claire, Wis.**—Meets second and fourth Tuesdays at Union Hall, corner Barstow and Wisconsin streets. President, George Headwick, 245 Barloud street; recording secretary, Chas. Anger, 948 Madison street; financial secretary, Louis Marsh, 521 Congress street.

***No. 433, Fremont, Ohio.**—Meets second and fourth Tuesday of each month at Germonade's Hall, corner of Park and Napoleon street. President, Ed. E. McCarty, 337 Harrison street, Fremont, Ohio; recording secretary, R. G. Dunfee, 401 Ash street, Fremont, Ohio; financial secretary, Wm. P. Stevens, Fremont, care U. S. Telephone Co.

***No. 434, Douglas, Ariz.**—President, J. H. Stewart; financial secretary, F. C. Farrington, care Douglas Imp. Co.

***No. 435, Marion, Ohio.**—Meets every Saturday at Central Trades Council Hall, South Main street. President, R. C. Owens, 01a street; recording secretary, Sylvester Rowe, 299 North Oak street; financial secretary, Fred Rowe, 299 North Oak street.

***No. 436, Oneonta, N. Y.**—Meets second and fourth Tuesdays at Trade and Labor Council Hall at 160 Main street. President M. J. Young

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265 Main street; recording secretary, B. J. Waltz, 46 Academy street; financial secretary, Jno. O'Brien, 26 Broad street.

*No. 437, Fall River, Mass.—Meets first and third Mondays in each month at I. B. E. W. Hall, 26 North Main street. President, T. D. Sullivan, 253 Fifth street; recording secretary, John E. Sullivan, 576 Plymouth avenue; financial secretary, H. A. Manchester, general delivery.

No. 438, Greater New York, N. Y. (Electrical car workers).—Meets every Friday, at Odd Fellows Hall, 67 St. Mark's Place, New York. President, John W. Schmidt, 688 Gates avenue, Brooklyn, N. Y.; recording secretary, E. M. Young, 5617 Third avenue, Brooklyn, N. Y.; financial secretary, Julius N. Ehrenberg, 112 East Eighty-third street, New York.

*No. 439, Alliance, Ohio.—Meets first and fourth Friday at Fogg Building, corner Mechanic avenue and Main street. President John McCoskey, P. O. Box 946; recording secretary, A. V. Stanley, 218 W. Main street; financial secretary, H. J. Erhardt, 218 W. Main street.

*No. 440, Grand Rapids, Wis.—Meets second and fourth Saturdays at Catholic Foresters Hall, East Side. President, Geo. M. Huntington; recording secretary, C. M. Dougharty; financial secretary, J. H. Noyes.

*No. 441, Janesville, Wis.—Meets second and fourth Thursdays at Assembly Hall, corner Milwaukee and Franklin streets. President, James Fraser, recording secretary, Ed. Barron, 207 Cherry street; financial secretary, Joseph C. Shuler, 56 Palm street.

*No. 442, Spartansburg, S. C.—Financial secretary, Fred Schueler, care of So. Bell Tel. Co.

*No. 443, Key West, Fla.—Meets second and fourth Wednesday at Cigarmakers Hall, corner Caroline and Elizabeth. President, H. L. Lee, 514 Southard st.; recording secretary, Jos. H. Monticino, 500 White st.; financial secretary, R. B. Gilbert, 514 Southard st.

*No. 444, Richmond, Ind.—Financial secretary, J. L. McNeill, 106 North Ninth street.

*No. 445, Battle Creek, Mich.—Meets every Friday at Trades Council Hall, Main and Jefferson streets. President, Wm. Evans; recording secretary, W. R. Blodgett, 583 Marshall avenue; financial secretary, J. P. Long, 21 Locust street.

*No. 446, Columbus, Ohio.—Meets every Friday at 8 p. m. at 167½ South High street, over Lazarus' department stores. South High street. President, J. C. McCoy, 720 Cleveland ave; recording secretary, Henry Kern, 570 Stanley st.; financial secretary, J. H. Esmond, 408 Buttes ave.

*No. 447, Port Huron, Mich.—Meets second and fourth Mondays in C. M. B. A. Hall, 935 Military street. President, Wm. J. McManus, 1504 Ninth street; recording secretary, H. S. Adams, Hotel Messenger; financial secretary, P. Leo Wittliff, 825 Griswold street.

*No. 448, Annapolis, Md.—Meets second and fourth Thursday at Arundel Hall, cor. West and Church Circle. President, Chas. B. Orrell, 30 West street; recording secretary, Wm. G. Fothergill, Eastport, Md; financial secretary, Ed. T. Beavin, 13 Cathedral street.

*No. 449, Augusta, Ga.—Financial Secretary, J. L. Reed, care of Strowger Exchange.

*No. 450, Trinidad, Colo.—Meets first and third Thursday, Poltry Block, Commercial street. President, E. T. Drout, Tel. Co.; recording secretary, Joe. Gayway, First street; financial secretary, John Nigro, general delivery.

*No. 451, New Decatur, Ala.—President, J. H. Mackin, Ala. Traction Co.; recording secretary, Jas. Foster, Box 86; financial secretary, George H. Rider, So. Bell Telephone Co.

No. 452, Pensacola, Fla.—Meets every Wednesday at 7.30 p. m. at Central Trades Council Hall, Old Armory Hall. President, Gus. Boursette, 626 East Garden street; recording secretary, T. D. Adams, P. O. Box 793; financial secretary, W. C. Walker, 513 North Sixth avenue.

*No. 453, Sumter, S. C.—Recording and financial secretary, E. H. Lynam, 311 West Calhoun street.

*No. 454, Charlotte, N. C.—President, J. R. Griffith; recording secretary, W. W. Norwood; financial secretary, S. J. Alexander, 503 Poplar street.

*No. 455, Shawnee, O. T.—Meets every Thursday at Labor Hall. President, W. C. Campbell, 304 North Tucker street; recording secretary, B. Shipley, 215 E. Main street; financial secretary, H. Brown, P. O. Box 421.

*No. 456, Oklahoma City, O. T.—President, C. B. Griffin; recording secretary, F. Maurice Johnson, 317 West Post street; financial secretary, Guy Wetherbee, 1106 North Harvey.

*No. 457, Kenosha, Wis.—Meets first and third Fridays, at Schlitz's Hall. President, F. O. Wood, 5 Park Court; recording secretary, Ellis Hogan; financial secretary, E. Parsons, 723 Exchange street.

*No. 458, Aberdeen, Wash.—Meets every Sunday, 12 m., at Longshoremen's Hall. President, Frank Ratty; recording and financial secretary, M. O. James, 201 Heron street.

*No. 459, Cortland, N. Y.—Meets second and fourth Tuesday at Martin Block, Main street. President, John J. McMahon, Grotin avenue; recording and financial secretary, W. H. Hartnett, 5 Sand street.

*No. 460, Chickasha, Ind. T.—Meets second and fourth Friday nights of each month at Riddle and Kings law office, Bank of Commerce Building. President, C. P. Bowen; recording and financial secretary, Charles A. King, Box 491.

*No. 461, Lowell, Mass.—Meets every Tuesday at Bay State Hall, Central st. President, James E. Farrell, 107 Fulton street; recording secretary, J. M. McDermott, 100 Bourne street; financial secretary, George B. Conant, 176 Cross street.

*No. 462, St. Louis, Mo.—Meets every Wednesday night at Lightstones Hall, southeast corner Eleventh street and Franklin avenue. President, John M. Kossenjans, 2015 Geyer avenue; recording secretary, Norman O. Wagner, 2120 Locust street; financial secretary, Wm Folkerts, 1121 Union avenue.

*No. 463, Montreal, Province of Quebec, Canada.—Financial secretary, T. Soucy, 468 Wolfe st.

*No. 464, Cleveland, Ohio.—President, W. A. Campbell, 86 Berlin st.; recording secretary, Barney S. Kirchner, 553 Lorain st.; financial secretary, Wm. B. Smith, 84 Barbara st.

*No. 465, San Diego, Cal.

*No. 466, Belvidere, Ill.—President, Jas. Thorne, 411 McKinley st.; financial secretary, Geo. Trinoney.

*No. 467, Chattanooga, Tenn.—Meets Monday at G. A. R. Hall, over 115 W. Eighth st. President, W. B. Lawing, 18 Bluff View; recording secretary, J. H. Brotbeck, 1019 E Eighth street; financial secretary, J. W. Daubenspeck, Sherman Heights.

DISTRICT COUNCILS.

First District Council, Schenectady, N. Y.—Meets first and third Tuesday of each month, in Mohawk Hall, Brodt & Yates Building, corner State and Center streets. President, John H. Cornick, 808 Grant avenue; vice-president, Barney A. Cawley, 77 Second avenue; recording secretary, Chas. P. Ford, 98 Church Road.

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No. 350, Hannibal, Mo.—A. H. Gwan, 320 Bird street.

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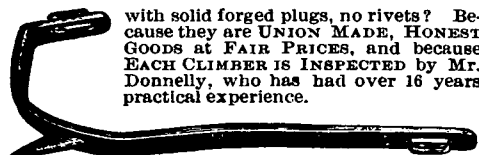
No. 358, Perth, Amboy, N. J.—Wm McDonough, 138 Smith street.

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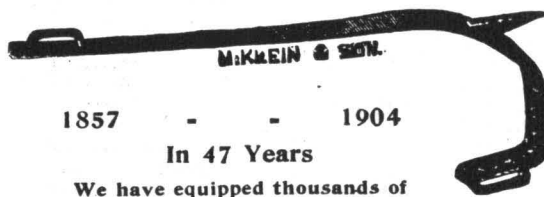
O Governor! we wonder how you sleep,
When wives of murdered miners sob and
weep.

Perhaps your heart is hard and cold
And you've sold your soul for gold.
And you glory in the sufferings of the weak—
Hence you sleep.

But the devil yet will claim you for his own,
And escort you down below to his hell
home;

Then decent people will rejoice
At the stillness of your voice,
And they'll all shout, "Halleluia!" when
you're gone—
When you're gone.

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